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The Serologic Diagnosis of Syphilis*

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■ DURING the past few years both the public and the medical profession have shown an augmented interest in the subject of syphilis as a public health problem. The resulting great extension in the use of routine serodiagnostic tests for syphilis has served to focus attention anew upon the many problems presented by their use, and it is our purpose today to consider some of these.

From the time of the introduction of the Wassermann test in 1905 and of the first of the flocculation tests in 1917, the number of modifications of these basic methods rapidly increased to the point where Vaurs in Jeanselme's text listed over one hundred tests described for the serodiagnosis of syphilis, and apologized for the lack of completeness in his list.

Evaluation of the merits of such tests by individuals is conceded to be unsatisfactory. Kahn, for example, has said that "Authors of methods are no less human than others, and they are likely to magnify the merits of their respective methods." The result is that clinicians will often hear diametrically opposed views as to the value of a given method, making it difficult for them to decide on the method of choice. Another source of discrepancy was cited by Mugrage, who pointed out that, "many of the published reports evaluate other tests in terms of a favorite procedure; that this is naturally true of reports by the originators of the different tests, and by their expert assistants, as both have developed a surpassing technic in the procedure in which they are particularly interested."

The Health Organization of the League of Nations, aware of the need for more satisfactory evaluation of serodiagnostic methods for syphilis, held its first laboratory conference in Copenhagen in 1923. A second and more comprehensive conference was held in the same city in 1928. In this second conference there were seven participants who used some form of the Wassermann test, including two who employed the original technic, and eight, including Kahn as the only representative of the United States, who used flocculation tests. All of the specimens of serum were examined in Copenhagen by the various participants. As an indication of the variation in results which may occur with the use of different methods, it is interesting to note that with regard to sensitivity, that is, the ability of a test to detect syphilis when present, the various methods showed in cases of known syphilis, treated and untreated, a percentage of positive results ranging from 63.5 down to 28.2.

A third laboratory conference was held under the same auspices at Montevideo, Uruguay, in 1930. On this occasion there were seven participants employing some form of the Wassermann test, and four using flocculation tests.

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The sensitivity of the various tests ranged from 75.6 per cent to 45.4 per cent.

In the report of this conference it was stated that the majority of the participants agreed that in the hands of Kahn himself, the Kahn standard test was the best of those demonstrated at the conference. As was also true at the second Copenhagen Conference, the Kahn standard test proved to be extremely sensitive and absolutely specific, since it gave no false positive reactions.

American Evaluation

These conferences were of great value in furnishing information with regard to the comparative merits of some of the available serodiagnostic methods, but some of the earlier American tests were not represented at the conference, and of course new methods had been introduced subsequent to these conferences. In view of the multiplicity of tests in use in this country, the American Society of Clinical Pathologists requested of the Surgeon General of the United States Public Health Service that an evaluation of serodiagnostic tests for syphilis be undertaken in the United States. As a result of this request a committee was formed to act under the auspices of the Service, and a general invitation was extended to serologists in this country who had described an original serologic test or a modification of a preëxisting test.

This evaluation study followed the general plan of the League of Nation's conferences, but differed in one important respect, since the sera were sent to each of the participants, who was thus able to test them in his own laboratory, in most instances along with his routine serological work.

Thirteen serologists participated in the evaluation, four of them performing complement-fixation tests, while nine performed flocculation tests. In the study were used 415 blood specimens obtained from patients with syphilis and 152 from normal, presumably non-syphilitic, individuals. In the syphilitic group there were 43 untreated patients with primary syphilis, 65 untreated patients with early secondary syphilis in the eruptive stage. and 307 patients with late syphilis with varying amounts and kinds of treatment. The results of the examination of the sera from these patients furnished the basis for the determination of the relative sensitivity of the different tests.

Sensitivity.—With regard to sensitivity, this can be measured best by the results in the cases of untreated primary syphilis and those of late syphilis, either treated or untreated, as it is to be expected that in the cases of early secondary syphilis the results would be positive in almost every instance. This is borne out by the finding that among cases in the early secondary stage the sensitivity was 100 per cent with ten of the tests, and was over 98.0 per cent with the other three. The percentages of positive reactions obtained by the 13 participants on the sera of the group of syphilitic patients ranged from 88.2 to 64.8 per cent. The average in sensitivity of the nine flocculation tests was 80.3 per cent, and that of the complement-fixation methods 75.1 per cent.

Specificity.—With regard to specificity it was highly desirable that every precaution be taken to exclude the possibility of syphilis in any of the donors of blood in this group. Consequently these individuals were examined clinically and serologically reëxamined when more than one positive or more than two doubtful results were reported on any one specimen.

In this portion of the evaluation a specificity of 100 per cent was recorded with five tests: those of Brem, Kahn, Kline, Kolmer and Williams. Among the others, there were from 0.7 to 3.3 per cent of false positive reactions. In this field the average of non-specific positive reactions among the nine flocculation tests was 1.34 per cent, and among the four complement-fixation tests 0.2 per cent.

As most of us are interested chiefly in those tests now more or less extensively used, we may point out that in this study the percentage of sensitivity was 86.6 per cent with the Hinton test, 84.1 per cent with the Eagle test, 80.5 per cent with the Kahn test, 76.3 per cent with the Kline test, and 75.9 per cent with the Kolmer test. From the standpoint of specificity the tests of Kahn, Kline, and Kolmer gave no false positive reactions, while that of Eagle gave 2 per cent and that of Hinton 0.7 per cent of such reactions.

Having thus obtained this information as to the several tests, it seemed wise to attempt to determine the results of these tests when employed by others than those who had originated them. Consequently, under the auspices of the same committee, thirty directors of state, municipal or private laboratories were extended invitations to participate in a study in which they were to perform the tests selected by themselves, while controls on

a comparable sample of blood were to be performed by the originators of each of the methods selected. The results of this study emphasize clearly the wide variations in the reliability of different laboratories. Of the 30 laboratories, 14 performed the Kolmer complement-fixation test. The results of the tests performed by Kolmer, acting as a control for this group, showed 100 per cent specificity and 59 per cent sensitivity. Of the participating laboratories, 8 obtained 100 per cent specificity, while the other six reported from 1 to 3 per cent of false positive reactions. Compared to Kolmer's finding of 59 per cent of positive reactions in the known syphilitic group, the other laboratories reported from 35.3 to 71.4 per cent of positive reactions, a variation of 36 per cent between the two extremes.

With another set of blood specimens, Kline, acting as control for those laboratories using his test, showed a specificity of 99 per cent and 88.8 per cent of positive reactions in the syphilitic group. Of the seven laboratories employing his test 3 reported 100 per cent specificity, while the other four recorded from 1 to 4 per cent of false positives. The results as to sensitivity were more constant than in the Kolmer group, ranging from 69.4 to 93.2 per cent as compared with Kline's 88.8 per cent, a variation of 24 per cent in sensitivity among the several laboratories.

A third set of blood specimens was used for the Kahn test. With these Kahn had no false positive reactions, and 75.7 per cent of positive reactions among the known syphilitic group. Of the 12 laboratories employing his test 8 had a specificity result of 100 per cent, while the others had at most 2 per cent of false positive reactions. From the standpoint of sensitivity, Kahn reported 75.7 per cent of positive reactions, while the other laboratories employing his test reported from as low as 37.6 up to 88.7 per cent, a variation of 46 per cent in the proportion of positive reactions in a group of known syphilitics.

Tests in State Laboratories

Inasmuch as the present campaign against syphilis has resulted in an increased demand for the services of state laboratories, and since the previously discussed study demonstrated wide variations in the capabilities of different laboratories, there was conducted in 1937 a study of the work of 39 state laboratories, in an attempt to evaluate their use of the complement-fixation, the Hinton, Kahn and Kline tests. In this study comparable samples of blood were examined by all of the participating laboratories and by Hinton, Kahn, Kline and Kolmer. I will not go into detail as to these results, but will summarize by stating that while the control laboratories obtained from 83.9 per cent to 92.9 per cent of positive reactions in the known syphilitic cases, for an average of 87.3 per cent, the average of the participating state laboratories was 71 per cent, an average failure of 16 per cent.

Even more disturbing than the results of state laboratories with regard to sensitivity were the findings relating to specificity. None of the control laboratories reported any false positive reactions, but with the 69 tests performed by the state laboratories, for some performed two or three tests, there was some proportion of false positive reactions in 16 instances and in three of these the proportion of these undesirable reports was 8 per cent, 9 per cent and 10 per cent respectively.

Since this study of the work of state laboratories in 1937, a similar evaluation has been carried out annually. No detailed comment regarding these studies will be made here, but it should be noted that the standard of test performance in state laboratories has been definitely raised since the first comparative study indicated to some directors the shortcomings of the performances under their control. In the 1938 evaluation procedure the average of sensitivity results was only 9 per cent below that of the control participants as compared with a difference of 16.3 per cent in the 1937 study. The results showed a corresponding improvement in specificity, as no State laboratory reported more than two per cent of false positive reports.

The Committee has felt that criteria should be established which could be used to determine satisfactory performance of serodiagnostic tests for syphilis, and proposed that for sensitivity the result should not be more than 10 per cent below that of a control laboratory, while for specificity not more than one per cent of false positive reactions is allowable. Using these standards it is found that in 1938 thirty state laboratories furnished unsatisfactory performances of at least one test, while in 1939 only 22 laboratories were unsatisfactory. Corresponding improvement has been noted in the studies carried out in 1940 and 1941, and it is safe to state that at present the performance of most state laboratories is satisfactory.

As an outgrowth of the evaluation of the work of the state laboratories, it has become possible to certify many of these laboratories as qualified to carry out similar evaluation of the work of the municipal, hospital and private laboratories in their domains. Actually, such intrastate studies have already been offered in some states and carried out on a purely voluntary basis. It is to be hoped that eventually, through this procedure, the practicing physician will be able to obtain information as to the caliber of performance of any laboratory whose service he may desire to use.

Not all the problems of the serodiagnosis of syphilis would be solved, however, if all laboratories were able to attain perfection in the technical aspects of the use of such tests, for there would remain many questions dealing with the interpretation of results. And it is the practitioner, rather than the laboratory worker, who must be familiar with these problems and must use his knowledge in applying the result of the laboratory test to the individual case.

Relation to Stage of the Disease

Primary.—It is well known that the proportion of positive serologic reactions to be expected in syphilis varies greatly with the stage of the disease. In the primary stage the reaction does not become positive until the chancre has been present for a variable period, and at the end of the second week of existence of the chancre the proportion of positive results is usually from 35 to 50 per cent, although with some of the more sensitive technics the proportion at this time may be considerably higher. In general, the reaction tends to be found positive somewhat earlier with the flocculation tests than with the complement-fixation technic. From this time on the proportion of positive results gradually increases until the time of the secondary period. Due to the fact that the development of a positive reaction is sometimes delayed for a considerable time, emphasis should be laid upon the danger inherent in ruling out a diagnosis of syphilis, in the case of any suspected lesions, genital or otherwise, on the basis of a negative serologic result.

Later Stages.—In the florid secondary stage of syphilis, the serologic reaction is positive with the use of a good technic in practically 100 per cent of cases. In the various studies discussed above, the control serologists uniformly reported positive reactions in all such cases. In view of this, one should be very reluctant to make a diagnosis of syphilis at this stage in the presence of a negative reaction. In the later stages of syphilis, depending on the type of involvement, the proportion of positive serologic results varies within wide limits, and negative reactions, even in untreated cases, cannot in this stage serve to exclude the possibility of syphilis. In recent years the more sensitive technics have greatly reduced the proportion of negative reactions in the later stages, but nevertheless such reactions are to be expected in some instances.

An important consideration in the interpretation of serologic results is that of the biologic false positive reaction. It may be stated that in a temperate climate the occurrence of a repeatedly positive reaction usually means that the patient has syphilis, but there are frequent exceptions to this rule. Considering those diseases which are considered to be capable of giving rise to false positive reactions, we find that frambesia or yaws leads the list, as the serologic reaction is positive in about 75 per cent of patients suffering from this disease.

Leprosy.—There has been much controversy in the literature as to the significance of a positive serologic reaction in lepers. Many experienced observers incline toward the belief that non-specific positive reactions are not common in leprosy. In our first study, however, fifty cases of leprosy were serologically tested. All of the patients had been carefully examined and were presumably non-syphilitic, yet the fifteen participants in the study obtained from 40 to 76 per cent of positive reactions. These figures are particularly striking in view of the fact that the sera were obtained from a group of lepers among whom the incidence of syphilis would not be expected to be materially higher than in the adult population of this country as a whole.

Malaria.—The question of the effect of malaria upon the serologic reactions for syphilis has also aroused considerable discussion, and a number of writers have expressed themselves as feeling that there is no evidence that malaria causes a positive serologic reaction when modern technics are used. An opposite view has been taken by other equally eminent observers. Wilson has recently studied 262 patients with malarial fever, and obtained a positive serologic reaction in seventy. Of

these 15, or 6.3 per cent, of the positive reactions were felt to be definitely nonspecific in character. In a more recent study conducted under the auspices of the United States Public Health Service, 266 cases of malaria occurring in presumably non-syphilitic white patients were examined serologically by Hinton, Kline, and Kolmer. Hinton reported 4.4 per cent of positive reactions, Kline 6.2 per cent with his diagnostic test and 16.2 per cent with his exclusion test, and Kolmer 4.9 per cent. These percentages are considerably higher than is to be expected among white subjects when care has been taken to exclude syphilis. Further evidences pointing toward the nonspecific character of these results are the higher incidence of positive results among females than among males, and the observations that the second highest incidence in any age group by decades was found in girls less than ten years of age. As a result of this study, it seems safe to assume that malaria, like leprosy, may be the cause of positive serologic reactions to tests for syphilis.

Other Diseases.—Among other diseases which appear to give rise to false positive reactions at times are recurrent fever, trypanosomiasis, spotted fever, scarlet fever, endocarditis, septicemia, and infectious mononucleosis. The last named is a rather recent but extremely important addition to this group.

Other conditions which are cited as capable of giving rise to such reactions are tuberculosis, malignant neoplastic disease, jaundice, diabetes, fever from various sources and pregnancy, but there is little evidence to show that confusion will often result from their effects. For example, a recent study of 458 cases of tuberculosis, the patients being carefully selected as presumably nonsyphilitic, showed 8 serums which gave a positive reaction to many tests. Four of these were found to be from patients who were probably syphilitic, while in three instances the patients were not available for reëxamination, and in the other case no evidence of syphilis could be found. The conclusion reached from this study was that tuberculous toxemia may in rare instances cause some confusion in the interpretation of serologic tests for syphilis, but that, with the use of competent tests, it is not a major factor. This statement probably summarizes equally well the status of the other conditions mentioned as occasional sources of false positive reactions.

It is worthy of note that in many of these instances of the production of a biologic false positive reaction by disorders other than syphilis, the reaction is often incompletely positive, varies greatly in strength with different tests and in different laboratories, and often becomes spontaneously negative.

Children.—Rothbart has recently recorded the finding of 12 cases in which apparently nonsyphilitic children, seen in a two-year period, showed positive serologic reactions. The incidence was one case in each 550 routinely examined in pediatric practice. In 4 cases the serologic reaction was weakly positive, while in 8 the reaction was strong. In 11 of the 12 cases, the child was suffering with acute or chronic infection. In 11 of the 12 cases the reaction became negative spontaneously. The writer expresses himself as being of the opinion that in children a fluctuating serology which becomes less markedly positive and finally negative without intensive antisyphilitic treatment is not indicative of syphilis.

Cord Blood.—The interpretation of the serologic reaction of the cord blood and that of the infant in the first few weeks of life furnishes one of the most perplexing features in the diagnosis of prenatal syphilis. At the outset it must be stated that the serologic reaction for syphilis in the infant may be negative in the presence of infection, and that conversely the reaction may be positive when the infant has escaped infection. Dick states that nearly 40 per cent of all syphilitic infants have a negative serologic reaction at birth. Such negative tests may be present because of the treatment of the mother, because of late intra-uterine infection or because of the immunologic immaturity of the infant. The time at which the reaction will become positive in such cases will depend upon the above factors together with the virulence of the infection and the sensitivity of the test employed. Ingraham found that about one-third of syphilitic infants having a negative serologic reaction at birth developed a positive reaction in less than a month, while about 90 per cent developed the reaction within 3 months, and 96 per cent within 6 months. Dick states that with rare exceptions the reaction becomes positive by the age of 2 months and Davies feels that most infants with prenatal syphilis will develop a positive serologic reaction by

one or more sensitive methods within 4 months after birth.

In 1915, Fildes pointed out that the Wassermann reaction obtained with blood from the placental end of the cord is not diagnostic of syphilis in the infant but of syphilis in the mother. He likewise stated that the phenomenon does not depend on the use of blood from the umbilical cord but is also met with when the blood is obtained directly from the infant. Such reactions depend upon the transmission from the mother to the infant of a sufficient quantity of specific reagin. These positive reactions resulting from such reaginemia tend to diminish or disappear within two weeks' time, and in more than 50 per cent of such cases the blood reaction will become negative within 3 weeks, but in rare instances the positive reaction will persist for at least 3 months after birth. Davies, in eleven cases in which newborns had a positive blood test at birth, and which were followed for six months or more, found congenital syphilis recognizable in two, while nine were symptom free at the end of one year. Almost one-half of fifty-six cases in his series had a positive serologic reaction neonatally, but in only two of the cases was syphilis detected. Brunner found 18 per cent of nonspecific reactions in his series of cases, while Krukenberg put the figure at from 30 to 55 per cent.

Faber and Black studied the titer of the reagin in these cases by means of quantitative Wassermann tests, and they felt that a falling titer of syphilitic reagins probably means a passively transferred reaction, and that on the other hand a titer stronger than that of the mother's blood at the time of delivery or a progressively increasing titer is indicative of syphilis in the infant. Dunham studied by means of quantitative reactions seven cases in which the serologic reaction was positive at birth, and found that the titer gradually weakened until six presented negative reactions at the end of six months, while the seventh, not tested until the end of the first year, then had a negative reaction. Christie recently confirmed their findings, when he tested quantitatively the bloods of fourteen infants born of syphilitic mothers. In eleven instances the serologic reaction became weaker, then became and remained negative within 22 to 86 days. All eleven of these cases have had at least two negative Wassermann reactions, the last test having been made after five months' observation in all cases. In the other three cases, the blood remained positive in reaction, and the titer increased, and all of these patients developed clinical or roentgenographic evidence of syphilis. In the discussion of Christie's paper, Faber stated that Black had retested five of the eight cases originally reported by them and the patients, then all over two years of age, still gave negative reactions.

It must be remembered, however, that a falling titer or complete reversal of the serologic reaction does not give assurance that the infant has escaped infection, as the transmitted reagins in the infant's blood may decrease or disappear completely before a positive reaction develops as the result of the production of reagin through the infant's own infection.

Taking the study of cord blood reactions as a whole, Whipple and Dunham, on the basis of Ingraham's investigations, conclude that the results of the serologic examination of cord blood are not true for 15 per cent of syphilitic infants, and that the presence of a negative reaction of the cord blood fails to guarantee freedom from syphilis in about 40 per cent. Ingraham found that the Wassermann reaction was of value in the diagnosis of not more than 9 syphilitic children among 195 offspring of syphilitic mothers. Cregor and Dalton state that if all the infants with positive serologic reactions at birth were treated for syphilis, 69 per cent would be treated needlessly.

Biologic False Positive.—Lastly, I would like to speak of a type of false positive reaction which is a source of great difficulty for the practitioner who encounters it. This is the occurrence of a biologic false positive reaction in an apparently healthy individual who cannot be shown to have syphilis or any other detectable disease. Lorenz states that such a situation is met with about once in every 5,000 serologic tests; Moore, once in 2,000 tests. As a rule the serologic reaction of such individuals falls in the doubtful or incompletely positive zone; the reaction will usually vary in intensity from day to day or week to week with the same test made in the same laboratory; and when tests are performed on comparable samples of blood in different laboratories on the same day variations from a frankly negative to a strongly positive reaction may be encountered. As an illustration I might cite the case of a young woman, observed by Dr. Paul A. O'Leary and myself, whose serum has been tested in twelve different laboratories over a five-year

period. During that time the Kahn test has been negative eight times, one plus nine times, two plus four times, three plus once and four plus four times. The complement-fixation test has been negative twelve times, two plus once, three plus once and four plus once. The Kline test gave a negative reaction once, a one plus reaction three times, two plus four times, three plus twice and four plus once. The Hinton test gave a strongly positive reaction on three occasions, and a four plus response once. In this case there was no history or clinical evidence of syphilis, and examination of the spinal fluid on two different occasions gave negative results. We eventually decided to institute treatment in this patient, and after eighteen months of moderately intensive treatment, the serologic reports continued to show the same discrepancies.

Cases paralleling this one are met with rather frequently, and the interpretation of the serologic reports in such instances brings a tremendous responsibility to the physician. It has been my experience that in nearly all such cases, observation over a long period of time leads to the conclusion that the patient does not have syphilis. Moore, Kahn and others advise the use here of a good quantitative technic for a prolonged serologic follow-up. With such observation, marked fluctuation or spontaneous fall in the titer indicates that the patient is probably not syphilitic.

Verification Tests.—The investigative serologist, no less than the clinician, is fully aware of the diagnostic difficulty presented by the biologic false positive reaction, and it is hoped that eventually some method of differentiation of such reactions from those due to syphilis will be developed. Witebsky developed a method which he felt to be useful for this purpose, but the procedure has not been shown to be acceptable, and furthermore, is too complicated for general application. In 1940 Kahn introduced his "verification" test, which he believed should help to detect false positive reactions. This method depends upon the differences in behavior of the sera of animals and humans when tested both at 37° C. and at 1° C. At 37° C. syphilitic sera show a tendency toward negative reactions and animal serums, toward positive reactions. The non-specific results in humans are supposed to correspond in behavior to the positive reactions obtained with serum from animals. It is as yet too early to evaluate the value of this "verification" test, and both favorable and unfavorable comments as to its merits have been expressed up to now.

Conclusions

A series of serologic studies carried out by the Health Organization of the League of Nations and the United States Public Health Service have demonstrated:

1. That there is available a number of diagnostic tests, developed in the United States, which are eminently reliable, for the serologic diagnosis of syphilis. Among these should be listed, in alphabetical order, those most widely used, namely Eagle, Hinton, Kahn, Kline and Kolmer.

All of these tests lend themselves to capable performance in the hands of others than their originators, as shown by the excellent reports on the part of some laboratory workers. Other workers, however, have demonstrated that, with inadequate technic, their reports can serve only to lead the physician into errors in diagnosis and treatment. Some workers failed to detect syphilis in over fifty per cent of cases where the serologic report should be a positive one, and reported positive reactions in from two to ten per cent of non-syphilitic individuals.

2. It is therefore important that the physician exercise great care in the selection of a diagnostic laboratory.

3. At least two different tests should be used in the examination of each serum, as each method is capable of detecting a certain proportion of positive reactions which might be missed by the other.

4. A single positive reaction, in the absence of conclusive clinical evidence of syphilis, should always call for a recheck.

5. The serologic reactions in late syphilis are often negative, give a positive reaction with one method and negative with another, or with the same method may vary in intensity.

6. Biologic false positive reactions are common in yaws and leprosy, fairly frequent in malaria and will result occasionally from certain other diseases.

7. Serologic results in the newborn are inconclusive, and reactions negative at birth may later become positive or the reverse may occur. In the latter instance it is possible that the infant may not be syphilitic, the temporarily positive reaction resulting from reagin carried over from the infected mother.

8. In rare instances non-syphilitic persons,

with no other demonstrable disease, may show positive reactions, usually only partially positive, and almost always with marked fluctuations in the intensity of the reaction from time to time, even from day to day.

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The Treatment of Fractures*

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THE successful treatment of fractures has always been a serious problem to the medical profession as a whole and to the individual physician. Of late years the enormous increase of industrial and automobile accidents has complicated the problem, first, because the incident fractures are apt to be severe and second, because they so often happen right in the general practitioner's own front yard, far from the conveniences of the hospital. The war in which we are now entered makes the problem still more pressing.

There are certain underlying and absolutely necessary principles, a knowledge of which is essential to success in the treatment of fractures. If we know them and apply them intelligently we can afford to tackle a fracture without fear of a damage suit. If we don't know them we shall be far happier and in the end richer if we turn our fractures over to some one who does.

Principle 1.—The first of these principles is the one expressed in the slang of World War I, "Splint 'em where they lie." This means correction at the scene of injury of gross deformity and immediate immobilization by some sort of splint, the best of which is the Thomas. Every physician who may be called on to treat fractures should have at hand a Thomas leg and arm splint. In World War I, before the principle of splint 'em where they lie was adopted by the French and English, the death rate from compound fractures of the femur was 90 per cent. After the stretcher bearers were taught to apply Thomas splints to these injuries on the field of battle, the death rate fell to 27 per cent. In the absence of the Thomas, a satisfactory splint always can be improvised. The patient should not be moved until the splint is applied. Definitive treatment of all fractures should be in a hospital.

Principle 2.—**The second principle is that of immediate reduction. On arrival at a hospital all fractures should be reduced as soon as the patient's clothes have been removed and x-rays taken. Never "wait until the swelling goes down," because every minute of delay means plastic organization of damaged soft tissues, contraction of muscles and increased resistance to reduction. Never wait for shock to subside. Reduction of fractures except in plainly hopeless cases does not increase shock but tends to reduce it, by putting damaged muscles at rest, thus stopping hemorrhage and pain. Prompt accurate reduction of fractures will prevent swelling.**

Principle 3.—The criterion of successful reduction of fractures is the restoration of normal length to the damaged bone. If this is accomplished alignment will usually take care of itself unless muscle or fascia lies between the fragments. This principle of restoration of length is apparent to everyone when it applies to the shafts of the long bones, but it is equally important in the impacted fracture of the lower end of the radius or tibia, or in the os calcis or elbow, where it is less apparent.

Principle 4.—Gentleness during reduction. Fractures should be persuaded into position rather than bullied. Violent manipulation is sure to increase the already existing damage to the soft tissues and thus still further jeopardizes the circulation.

Principle 5.—**Avoid repeated manipulations. The foundation of successful healing of fractures is layed in the first few hours and days. Repeated manipulation is a very common cause of delayed union, because it softens callus and damages new blood vessels forming around the fracture.**

*Read before Wayne County Medical Society at Round Table Discussion on "Fractures," January 7, 1942.

Principle 6.—Where immediate reduction by manipulation is unwise or impossible, traction must be used and used immediately. Though skeletal traction by means of pins or wires is the most popular method employed in hospitals, old fashioned adhesive plaster can be made to serve the purpose admirably in 90 per cent of the cases. To be efficient, traction must be applied early. Ten pounds of pull in the first twelve hours will accomplish as much as forty pounds later, as a plastic contracture of muscles occurs within that time.

Principle 7.—When satisfactory reduction of a fracture has been obtained, the reduction must be maintained continuously without interruption until healing has taken place. Motion at the point of fracture must be absolutely prevented.

Principle 8.—During healing of a fracture the function of neighboring joints and muscles must be encouraged by voluntary exercises, heat and massage.

Principle 9.—Immediate open reduction and internal fixation of many fractures is undoubtedly the method of choice in a few properly equipped institutions, but it should not be used if it can possibly be avoided, unless the surgical surroundings are perfect. A poor reduction firmly healed is much to be preferred to an amputation or osteomyelitis.

Principle 10.—X-rays in two directions must be taken *always,* before and after reduction, and regularly during the course of healing. These x-rays must be preserved and so marked as to be identifiable months or years later. Many a beautifully reduced Colles fracture has slipped days or weeks later to confound the physician months afterward in court.

Principle 11.—There are two general classes of fractures—the simple and the compound. The former can be handled by the use of ordinary skill and judgment, but the latter are all dangerous surgical emergencies and require the highest of surgical skill.

Treatment of Hemorrhage in Otolaryngologic Practice*

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Blood Dyscrasias

■ WHEN the otolaryngologist encounters spontaneous hemorrhage, which is difficult to control and is not associated with trauma or surgery, he must at once consider the possibility of a blood dyscrasia and seek the counsel of a hematologist.

The two most common forms of blood dyscrasias in which hemorrhage is the predominating symptom, are hemophilia and purpura hemorrhagica. Hemophilia is a hemorrhagic disease characterized by a marked prolongation of the clotting time of the blood associated with a tendency to bleed. The disease occurs practically only in males, but is transmitted only by the female. It is to be sharply differentiated from purpura hemorrhagica in that the latter occurs in either sex, is rarely congenital or familial. The condition of the blood in these two diseases is very different. In hemophilia the platelets are present in at least normal numbers, the bleeding time is normal and the clot retracts. In purpura hemorrhagica the number of platelets is much decreased, the bleeding time is prolonged and the clot is nonretractile and soft. In the latter condition the coagulation time is usually within normal limits instead of being prolonged as in hemophilia.

One must remember that prolongation of the coagulation time is not pathognomonic of hemophilia, but occurs also in sepsis, nephritis, liver disease and jaundice among other abnormal states. It is rarely as marked in these conditions, however, as in hemophilia.[2]

The one absolutely positive finding in the study

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of hemophilic blood is that the coagulation time and prothrombin time are abnormally long. The coagulation time is often an hour, sometimes several hours, and rarely as short as twenty minutes.[6]

The bleeding hemophiliac must have absolute rest and sedation. The local application of thromboplastic material is of little value. The intramuscular administration of placental extract may be remarkably effective. The effect of transfusion on the abnormal clotting mechanism is only temporary, yet it is of great value in controlling hemorrhage. About four days after transfusion, the clotting time returns to that before transfusion. Small amounts of blood, 25 to 100 c.c., can affect the coagulation time as much as large amounts. Hemophiliacs can undergo a surgical operation without serious hemorrhage if blood transfusions are appropriately used to hold the coagulation time near normal during operation and while the wound is healing.

Nasal Hemorrhage

In spontaneous epistaxis the site of bleeding is usually from the anterior portion of the septum in Kiesselbach's area where there is a generous interweaving of vessels. This area is readily accessible and the bleeding is easily controlled. Various sclerosing solutions are recommended. The silver nitrate bead or full strength trichloracetic acid is effective in the less severe bleeding. If the bleeding vessel is of larger caliber, the most effective treatment is electrocoagulation. With the nose anesthetized with 10 per cent cocain hydrochloride, electrocoagulation may be accomplished easily in adults and also in most children.

If the bleeding is from a persistent nasal ulcer which will not heal from conservative treatment, one should not hesitate to perform a submucous resection of the nasal septum. Most septal ulcers, which are not of specific etiology, will heal as a result of the improved blood supply from the opposite mucous membrane.

Scal[15] uses radium in persistent nasal bleeding when not due to any systemic disease. The author started his work in 1924. He anesthetized the nose with 10 per cent cocaine. Either radium element or radon can be used, a total dosage of 200 millicurie hours of radiation being required for each side. When the element is used, 25 milligrams of radium which is enclosed in a platinum or brass container and covered with gutta percha is inserted into the nostril and allowed to rest against the site of the nasal bleeder. The platinum or brass capsule screens and filters the irritating and destructive alpha and beta rays, permitting only the therapeutic gamma rays to radiate the nasal mucosa. This 25 milligram capsule is allowed to stay in each nostril for four hours, delivering a total dosage of one hundred millicurie hours of radiation. The treatment is repeated in a week until two hundred millicurie hours of radiation are delivered. In a series of over 100 cases, the treatment was successful in all except one or two.

Surgical removal followed by radium therapy is effective in the treatment of pyogenic granuloma of the nasal fossa. Frank and Blahd[7] report five such cases of so-called bleeding polyps successfully treated in this manner.

Dack[3] has reported his success in the treatment of intractable nasal hemorrhage by the subcutaneous injection of moccasin snake venom. The use of moccasin venom was first introduced by Peck and Sabotka[13] in 1931. The rationale of this form of treatment was based on the observations of Peck and Sabotka that animals could be made resistant to the experimental purpura known as the Shwartzman phenomenon by previous injections of moccasin venom. Since Peck and Sabotka could not demonstrate any circulating antibodies in the blood serum that would explain this hemorrhagic effect, and since large doses of antivenin did not influence the cause of the Shwartzman phenomenon, they deducted that the antihemorrhagic effect was probably produced through a direct action on the vessel walls.

The method of treatment as described by the authors consists of subcutaneous injections of moccasin snake venom in 1:3000 dilution. The initial dose for adults is 0.3 c.c. which is rapidly increased to 1 c.c., given twice weekly. The injections are given for at least three months, and with the appearance of a therapeutic effect the interval between injections is gradually increased to from two to four weeks.

In the acute severe nasal hemorrhage, the origin of which is usually posterior, more drastic measures must be employed for the control of the bleeding. These hemorrhages

are usually encountered in individuals past middle age. Some have hypertension and arteriosclerotic changes in the vessel walls. These individuals become excited and alarmed at the rapid flow of blood. Large doses of morphine are immediately indicated. If the usual nasal packing does not control the hemorrhage, it has been the essayists' custom to use Monsel's solution on the pack before inserting it. If blood continues to run from the nasopharynx, a nasopharyngeal pack saturated with Monsel's solution is held in place by a thread attached to the cheek. These packs have been left in place as long as four days.

In severe epistaxis, still more difficult to control, one must consider ligation of the vessels supplying the area which is hemorrhaging. Davis[4] has drawn attention to the nasal blood supply.

By studying the drawing shown in Figure 1, it will be seen that the upper part of the nose is supplied by the anterior and posterior ethmoidal arteries arising in the orbit from the ophthalmic artery, a branch of the internal carotid artery. The lower and greater part of the septum is supplied by the nasopalatine artery given off by the sphenopalatine artery, a branch of the internal maxillary artery of the external carotid. The nasopalatine artery branches off at the sphenopalatine foramen and crosses the cavity of the nose on the under surface of the floor of the sphenoid sinus. This artery forms a network of capillaries to anastomose with the septal branch of the superior coronary, lying on the lower edge of the septum just within the nostril. Other branches of the sphenopalatine artery pass to the inferior turbinate and lower edge of the middle turbinate. It will be seen that the upper part of the nose is supplied by the internal carotid, and the lower part of the nose is supplied by the external carotid, a point to be remembered if a large main artery is to be ligated.

Goodyear[8] reported a case of bleeding from the anterior medial wall of the middle turbinate which was controlled by ligation of the anterior ethmoidal artery.

Hirsch[10] reported three cases of severe nasal hemorrhage controlled by the trans-antral approach for ligation of the internal maxillary artery (Fig. 2). Hirsch followed the technique described by Sieffert.[16] The approach is not too difficult for one accustomed to working in deep cavities with artificial light and has the desirable advantage of leaving no external scar.

In view of the high immediate mortality and

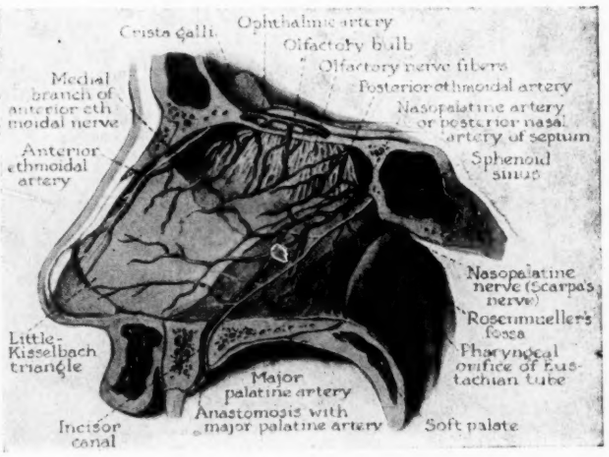

Fig. 1. (From Lederer's Disease of the Ear, Nose, and Throat. Published by F. A. Davis Company.)

the possibility of serious cerebral complications subsequently, ligation of the carotid arteries constitutes a most hazardous procedure even in the severest forms of nasal hemorrhage. From a neurologic point of view, it appears advisable as recommended by Johnson and Foster,[12] and by Strauss,[17] to ligate the external carotid artery only. They based their procedure in the control of severe intractable nasal hemorrhage on the fact that the major blood supply to the nose comes only from branches of that artery. The small anterior and posterior ethmoidal branches of the ophthalmic vessels and perhaps a few slight twigs perforating the cribriform plate come from the internal carotid artery. Thus, from the theoretical standpoint as well as from the neurologic aspect such a procedure promises best results with a minimum of danger. That this point of view is sound may be inferred from Jackson's[11] report of ligation of the external carotid artery in thirty-eight cases with effective control of hemorrhage and without cerebral complications.

Post-Tonsillectomy Hemorrhage

The most common complication of tonsillectomy is hemorrhage. The bleeding which occurs within the first few hours after operation is the result of relaxation of the walls of vessels severed when the tonsil is removed. Delayed hemorrhage results from superficial necrosis with

erosion of the vessel walls. Tonsillar hemorrhage must aways be considered an emergency in order to conserve the patient's blood. Every surgeon who is doing tonsillectomies should carry in his medical bag at all times a sterile hemorrhage set. This set should be complete to the last detail.

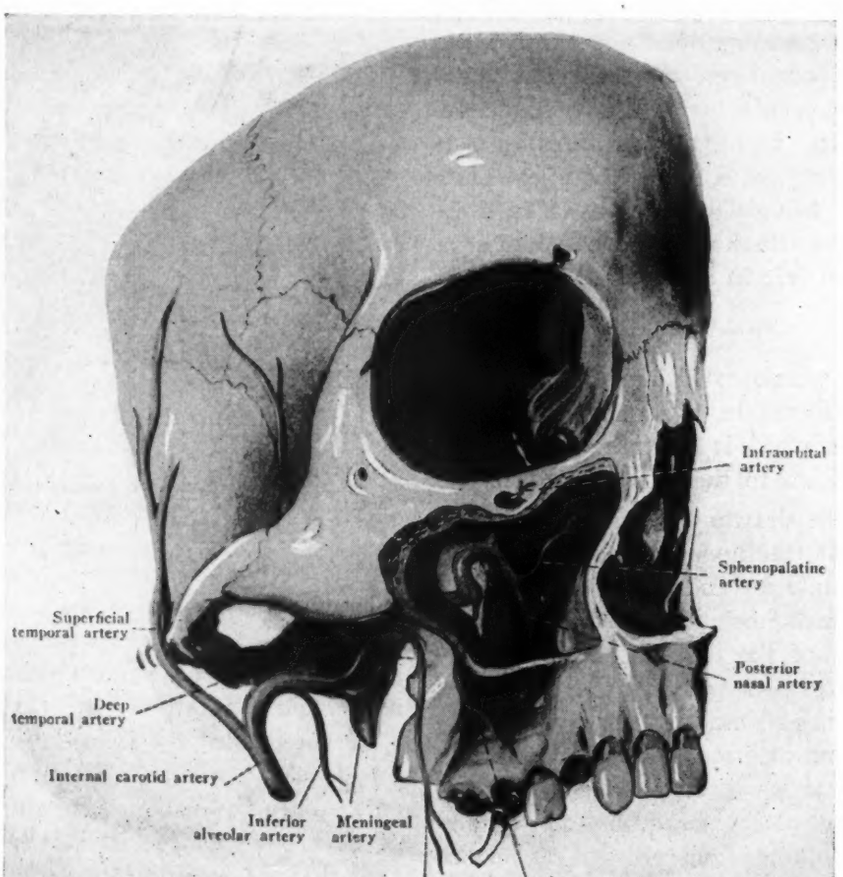

Fig. 2. Posterior wall of the maxillary sinus opened. The internal maxillary artery exposed. (From Kirschner's Operative Surgery Volume on Ear, Air Passages and Neck, by Ravdin. Published by J. B. Lippincott Company.)

If a child is uncoöperative, a general anesthetic must be given to allow the operator to accomplish his task. Delayed bleeding, which usually occurs about the fifth postoperative day, will usually be controlled by adequate sedation.

In adults, before any manipulation in the throat is attempted, a generous dose of morphine is given. The tonsillar fossa is completely freed of clot and the fossa injected with a solution of 1 per cent novocaine with adrenalin. The pressure on the vessel wall created by the injected fluid will at once stop many hemorrhages and nothing more is necessary. If the bleeding continues for a few moments, then a ligature can be applied to the vessels without pain. In delayed bleeding when necrosis and induration is present, tying of bleeding points is difficult. This type of bleeding is usually controlled by packing the fossa with cotton saturated with Monsel's solution and leaving the pack in place for several hours.

Most otolaryngologists do not have as much confidence in the various coagulens as do the respective manufacturers.

Goodyear[9] mentioned a case of intractable oozing from both tonsil fossæ shortly after operation. Packing, thromboplastics and transfusions failed. Finally 10 c.c. of warm whole blood from a donor was injected under the scapula with almost immediate cessation of hemorrhage.

If tonsillar hemorrhage persists after the various accepted methods of controlling it have been tried, one must consider ligation of the main arterial supply to that region. There are five ar-

teries supplying the tonsil, all branches of the external carotid artery; namely (1) facial, (2) lingual, (3) internal maxillary, (4) ascending pharyngeal, (5) descending palatine (Fig. 3).

Since all these vessels are from the external carotid, this would be the vessel ultimately to be tied in an emergency.

Hemorrhage Complicating Infections of the Throat and Neck

It is quite possible for one with an active practice to go many years without encountering a serious hemorrhage complicating infections in the throat and neck. However, when one is faced with such a hemorrhage, it is a matter of deep concern and the literature is consulted for information on the subject. It is then discovered that much has been written on this apparently rare complication by various authors for the past half century.

Salinger and Pearlman[14] have written comprehensively on the subject and have given an excellent review of the literature. In this review they discuss ligation of the carotid artery and confirm their conclusions by autopsy findings.

For some time there has been a difference of opinion as to whether the thrombophlebitis is the etiologic factor or whether the infection is carried by the lymphatics to the glands adjacent to the large vessels of the neck. There has been ample anatomic, pathologic and histologic proof submitted to support both theories, so that one must conclude that the pathways of infection are both lymphatic and venous, as well as by direct contiguity of tissue, depending on the type of infection.

In attempting to analyze the series of 227 cases collected by Salinger and Pearlman, they grouped them according to the anatomic spaces involved.

Group 1. Peritonsillar abscess.
Group 2. Peritonsillar abscess complicated by involvement of the parapharyngeal space.
Group 3. Retropharyngeal abscess.
Group 4. Retropharyngeal abscess complicated by involvement of the parapharyngeal space.
Group 5. Parapharyngeal abscess.
Group 6. Cervical abscess.

Of the total of 227 cases for all groups, there were 154 in which no ligation was performed, and only thirty-six (23 per cent) recovered. Ligation was performed in seventy-two patients and forty-seven recovered (65 per cent). There were eighteen ligations of the external carotid artery, with eleven recoveries (61 per cent) and fifty-four ligations of the common carotid artery with thirty-six recoveries (67.5 per cent).

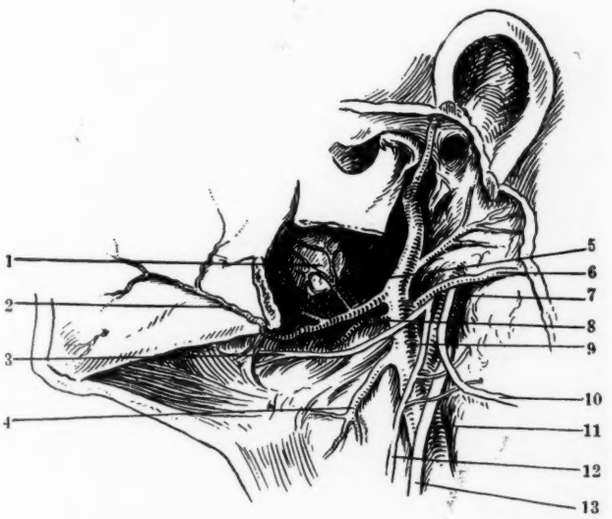

Fig. 3. Dissection of the region of the palatal tonsil from the outside. (1) Capsule of palatal tonsil, (2) facial artery, (3) hypoglossal nerve, (4) superior thyroid artery, (5) tonsillar branch of facial artery, (6) occipital artery, (7) internal carotid artery, (8) lingual artery, (9)external carotid artery, (10) spinal accessory nerve, (11) common carotid artery, (12) descendens hypoglossi nerve, (13) pneumogastric nerve. (From Loeb's Operative Surgery of the Nose, Throat and Ear. Published by C. V. Mosby Company.)

These figures prove that the advantage was in favor of the patient on whom a ligation was performed. The high mortality in the cases in which ligation was not performed was shown in ninety autopsies to have been due to erosion of a major vessel; the internal carotid in most cases.

In cervical infections there was erosion of the internal carotid in one case, the common carotid in one case and the internal jugular vein in thirteen cases.

In severe hemorrhage from peritonsillar abscess, it seems best to expose the carotid sheath, explore the branches of the external carotid if the source of the hemorrhage is found. If not, the external carotid alone may be ligated and a ligature placed about the common carotid to be tied if necessary. In some cases, the opposite external carotid may require ligation because of the free communication across the midline. In retropharyngeal abscess alone, or complicated by parapharyngeal abscess, the common carotid should be ligated and the same artery should be tied

in lateral pharyngeal space infections. In cervical infections, one must expose and ligate or pack off the internal jugular vein.

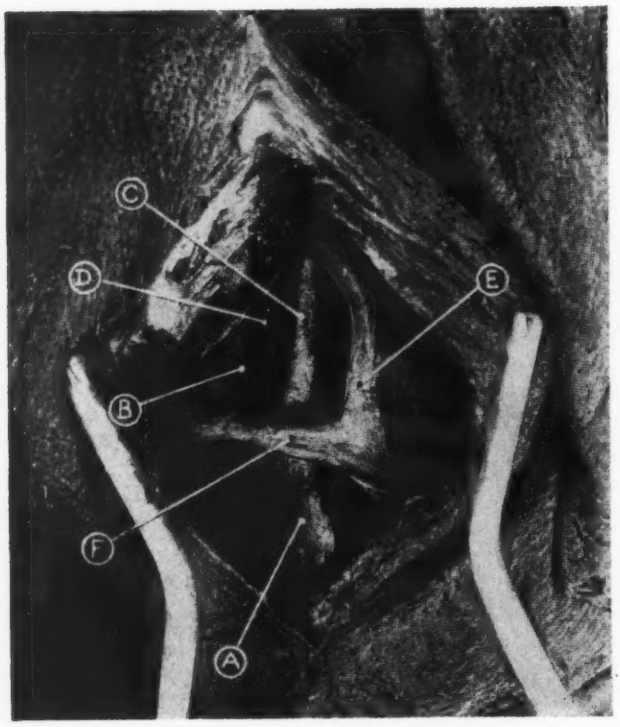

Fig. 4. Dissection showing the lateral prominence of the internal carotid artery. (A) Common carotid, (B) external carotid, (C) internal carotid, (D) ascending pharyngeal, (E) internal jugular vein, (F) facial vein. (From Jour. A.M.A. Dissection by Goodyear.)

Brownell[1] reported a case of hemorrhage in a lateral pharyngeal space abscess which was incised and drained externally. Several days after drainage, an alarming hemorrhage occurred and the common carotid was ligated. The hemorrhage continued until the external carotid was ligated. This back flow of blood from the external to the internal carotid is excellently explained by Dorrance.

Dorrance[5] reopened the neck after ligating the common carotid. He found the internal and external pulsating above the ligature. By using various combinations of clamps, he demonstrated that the blood was flowing under good pressure down the external and up the internal. As a result of verifying this observation six times, he concluded that ligation of the common carotid reduces the blood flow in the internal carotid by about 50 per cent. Almost half of the recurrent flow from the external carotid comes through the superior thyroid. He believes this retrograde current through the external carotid is a normal phenomenon after ligation of the common carotid and that it may be looked upon as a very important channel of collateral circulation to the brain when the common carotid is ligated.

In recognizing that ligation of the common carotid reduces the volume flow in the internal carotid by 50 per cent only, it is obvious that ligation of the common carotid constitutes a partial ligation of the internal carotid. There would appear to be no necessity, therefore, for the procedures of gradual throttling or fractional ligations of the common carotid by the use of special clamps or strips of fascia. It is obvious, also, that ligation of the internal carotid reduces the volume flow of blood to the brain to a greater extent than does ligation of the common carotid.

Since it has been demonstrated that the mechanism of the carotid sinus exists in the bifurcation of the common carotid, one is aware that ligation of the internal carotid carries with it an additional hazard. By increasing the pressure in the bifurcation back of such a ligature, the depressive action of the carotid sinus is increased. The ligation of the internal carotid, therefore, not only results in a greater reduction in the volume flow of blood to the brain but also produces a greater shock to the cardiovascular equilibrium.

When ligating vessels in the neck, it is well to remember that the terms external and internal carotid are rather misleading, applying rather to their relation to the outside and inside of the skull than to their relative positions in the neck. Textbooks do not emphasize the point that the internal carotid actually lies more superficial than the external and at just above the point of bifurcation (Fig. 4).

Most textbooks indicate that the bifurcation of the common carotid is at the upper border of the thyroid cartilage, but it is well to remember that the bifurcation may occur above the angle of the jaw. Barnhill has emphasized this point in his surgical anatomy.

When one states that the mortality rate is high in ligation of the great vessels of the neck, that thought should not cause too great a delay in ligation. Other factors influence the death rate. All these patients are poor operative risks. They have lost much blood, some are septic and others have fatal maladies which led to the liga-

tion. These views are supported in forty ligations for epilepsy collected by Wyeth[18] in which the patients were not debilitated and there were only two deaths.

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Angioid Streaks in the Retina

A Case Report

By Edmond L. Cooper, M.D.
Detroit, Michigan

EDMOND L. COOPER, M.D.

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PROBABLY over a hundred cases of angioid streaks in the retina have been reported in the literature. Therefore the condition is not rare but it is sufficiently uncommon to warrant presentation of a case.

D.M., a white man, aged thirty-five years, was examined because of the complaints that for six weeks he had noticed that things looked blurry with the right eye. The onset of the trouble was marked by a definite metamorphopsia. Straight lines did not look straight to him. There were no other ocular symptoms. There was a history of some eye trouble on his father's side of the family. His father's mother died blind and was said to have had ruptured blood vessels in both eyes. The father had some eye trouble the nature of which is not known.

His general health had always been good except for a productive cough of eight years' duration.

The vision with the right eye equalled 20/70-2 and this could not be improved with lenses or pinhole disc. The external examination of the eye gave negative results. In the fundus two small hemorrhages were seen directly in the macular area. Just above the macula were several spots of pigment heaping. In the extreme periphery especially above and temporally were several spots of choroidal atrophy, with pigment heaped up around the edges and the sclera showing through. Also scattered throughout the fundus were several small hard white spots. The disc appeared normal. The most significant finding was the black-brown lines or streaks which partially surrounded the disc and radiated outwards in angioid fashion. These streaks apparently lay beneath the retina since the retinal vessels passed over them and unlike blood vessels they were of different and varying breadths. One particularly large streak extended from the disc through and past the macula and the macular hemorrhages seemed to be associated with it.

The left eye was similar except that no macular involvement was noted. Vision with the left eye equalled 20/20.

The patient was referred for a general physical examination with the following findings: There was an area in the lower lobe of the right lung which x-ray showed to be bronchiectatic. Two sputum examinations were negative for tubercle bacilli. The blood count, Kahn and urinalysis were normal. No skin lesions were noted. There was no evidence either in the history or the examination to suggest Paget's disease.

The diagnosis was angioid streaks in the retina, O.U.; macular apoplexy, OD; and chronic bronchiectasis.

Discussion

Angioid streaks in the retina were first mentioned by Herman Knapp in 1892. It is a peculiar condition of the fundus oculi consisting of one, two, or several brown, reddish brown or black striæ, branching like vessels and usually occurring most densely in the area immediately surrounding the optic nerve head. The edges of the streaks are jagged or serrated and they lie beneath the retinal blood vessels.

Sooner or later the macula always becomes involved, the macular changes taking the form of hemorrhages and exudates or fibrous plaques similar to those seen in disciform degeneration.

Smaller, non-prominent, almost round white spots are often found in the periphery of the fundus. Both eyes are always involved.

Pseudoxanthoma Elasticum.—In 1929 Gronblad and Strandberg reported two cases of angioid streaks in the retina associated with a typical skin lesion known as pseudoxanthoma elasticum. The association of these two conditions has been repeatedly confirmed. Pseudoxanthoma elasticum is a rare skin disease the lesions of which are pin-head to pea-sized, discrete, irregularly outlined papules. These may fuse into patches of varying size. They are of a yellowish color. They occur chiefly on the sides of the neck, axilla and the abdomen. The face, hands and other areas usually the site of true xanthoma, are free. Histologically it has been shown to be a degenerative process affecting the elastin, the elastic fibers of the skin being swollen, degenerated, and broken. From this it becomes apparent that angioid streaks are the ocular manifestations of a general disease involving probably the elastic connective tissue. This explains why cases of pseudoxanthoma elasticum are seen without angioid streaks and vice versa. The case reported here showed no evidence of any skin lesions.

Bronchiectasis.—There is some question whether bronchiectasis may not be associated with a degeneration of elastic tissue in the bronchioles. A comprehensive search of the literature failed to reveal any other reported cases in which angioid streaks and bronchiectasis occurred together. The present case shows these two conditions co-existing but whether they have a common etiology is a question which cannot at present be answered.

Paget's Disease.—Verhoeff, in 1931, reported a case of angioid streaks associated with Paget's disease, or osteitis deformans. This is a chronic inflammatory affection of the bones characterized by hypertrophy and softening. It is usually confined to adult life and the lesions are usually symmetrical, the lower extremity, spine, and skull being most frequently involved. Seven cases in which these two conditions have been associated have since been reported.

Pathology.—The ocular pathology of angioid streaks has been the sources of much investigation. Some men have felt that the angioid streaks were hemorrhages. The idea that the streaks were new blood vessels has been advanced but objected to on the ground that the streaks are of varying widths. They have been interpreted as being folds in the choroid or retina. The most probable explanation was given in 1916 by Koeffler who expressed the belief that they were ruptures in the lamina vitrea of the choroid.

Proof of this was given by Hagedoorn of Holland early in 1939. In microscopic sections he demonstrated marked thickening of the lamina vitrea in cases of angioid streaks. Fne ruptures could be seen in it, while in many places the lamina vitrea was absent over larger areas.

Diagnosis.—Angioid streaks, no matter how varied in shape and color, are generally so typical that few conditions can give rise to difficulties in diagnosis. Since angioid streaks themselves do not produce clinical symptoms the patients are not usually seen unless the macula becomes involved. Therefore a whole group of macular conditions may provide some difficulty in diagnosis. Among these disciform degeneration of the macula (Junius Kuhnt) and ordinary senile macular degeneration are the most important and related. However, a careful examination of the fundus and skin will usually establish the diagnosis. Congenital melanosis of the retinal vascular system is apt to cause difficulty. It is differentiated from angioid streaks by the fact that the streaks in the former condition are of uniform width, are not grouped near the nerve head but extend into the periphery of the fundus, and sometimes can be actually seen to contain blood. The choroid is almost always involved in true angioid streaks but never in congenital melanosis of the retinal vascular system.

In view of the fairly poor prognosis in cases of angioid streaks all cases of pseudoxanthoma elasticum and Paget's disease should have a thorough examination of the eye grounds. It is suggested also that the ocular fundi be examined in all cases of bronchiectasis to determine the frequency of association of this condition with angioid streaks in the retina.

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Tokio discloses via radio that the Japanese, "preparing to fight a hundred-year war," are launching a public health and baby-breeeding program. It will be similar in many ways to campaigns in Germany.

Hypertension

Round Table Discussion*

NOON DAY STUDY CLUB

The Noon Day Study Club was organized within the Wayne County Medical Society in 1929 with the aid of the parent society. The motivating purpose of the Study Club from the very beginning was to give the younger doctors (under forty) an opportunity to obtain experience in the organization and functioning of a medical society.

Participation in the Study Club was enthusiastic from the very beginning and it has continued to be one of the strongest subgroups of the parent society. Many members have been substantially aided by their Study Club experience to go ahead in later years and take an important part in the functioning of our county and state medical societies.

Study Club meetings are held every Tuesday noon, throughout the fall, winter, and spring months. Meetings are devoted to presentation of timely medical topics by a member of the club, with time being allowed for discussion by the members. In general, the topics are divided evenly between medical and surgical subjects, with several meetings being devoted to clinico-pathologic presentations and round table discussions.

MANAGEMENT OF THE HYPERTENSIVE PATIENT

By G. Thomas McKean, M.D.
Detroit, Michigan

EACH patient with an elevated blood pressure must be considered a potential cardiac failure, a potential cerebral accident, or a potential uremia. These are the eventual causes of death in these patients if no intercurrent neoplasm, infection, or accident interrupts their course. The physician's efforts must be directed toward postponing the occurrence of any of these eventualities.

The term *management* of hypertensive patients is purposefully used to cover the first part of this discussion; for it is supervision of the patient's life that plays the largest role in our attempt to treat elevation of arterial pressure. Such supervision must be based upon a thorough knowledge of the environmental life and habits of the patient. No prescribed regime will fit each individual case. As the first essential of any such regime, rest must be provided. Frequently the routine of life of the patient must be thoroughly revised. He can no longer practice the kind of daily activities which our present hurried existence seems to demand.

The use of regular vacations and of periodic complete rest days both have a place in the attempt to improve the elevated blood pressure. It may prove most satisfactory for the patient to take a week off every three months or to spend one day of every week in bed. These measures, however, are only steps in the right direction. A more important change of routine is the establishment of a daily one- to two-hour rest period in the middle of the working day and the insistence on regular, adequate hours of sleep at night. Still more important is the instruction of the patient in methods of relaxation and increasing his ability to recognize when such relaxation or rest is essential. Fatigue is to be thoroughly avoided.

Exercise.—Well-regulated exercise is another factor in the plan of life for the hypertensive patient. Walking, golf, and riding horseback are the exercises usually advocated in such instances. The patient must learn with any such exertion when palpitation, dyspnea, or a feeling of fatigue is likely to appear and so restrict the exercise that he stops short of this point. Any sudden strain on the circulation must be avoided. He should be advised against straining at stool, walking against high winds, lifting heavy weights, *any* form of violent exercise, and high altitudes.

Diet.—Diet is of great importance to the patient with an elevated blood pressure who is overweight. I believe there is real lasting benefit to be gained in the obese hypertensive by a sensible program of reduction to a normal weight. The use of a 1,000 to 1,500 calorie diet with observation to induce a loss of approximately one or two pounds per week is most commonly advocated.

There is no sound basis for the restriction of any variety of protein in the attempt to reduce blood pressure. If the patient is not overweight, no special attention need be given to diet measures. Excessive indulgence in coffee, alcohol and tobacco are generally to be advised against.

Drug Therapy.—Sedative drugs are useful in securing adequate rest for these patients. Phenobarbital is most commonly used in doses of ¼ to ½ grain three or four times daily. This dosage must be regulated to the individual, using only sufficient medication to induce an effect without the production of drowsiness or impaired mental activity.

Sodium or potassium sulfocyanate is enjoying

*Held at Noon Day Study Club (Wayne County Medical Society), Detroit, 1941.

the position of being the most popular of the drugs which have some claim to being specific. Authorities vary in their figures as to the percentage of successful reduction of arterial tension to be attained by the use of this drug. All admit that toxic manifestations must be guarded against and there is too small a margin between the effective and the toxic dose. The introduction of a satisfactory method for following the blood level has aided the safer use of sulfocyanate.

One method advanced as a safe schedule of dosage is the following: 1½ grains (0.1 gram) three times daily after meals for one week, twice daily for the second week, and once daily thereafter. Individual variation seems to be so great that the use of blood determinations is best to ascertain whether too much is being given or to assure that a proper therapeutic level has been attained. The concentration of eight to fourteen milligrams per cent is suggested as the desirable level.

Everyone using sulfocyanate must be familiar with the toxic manifestations, of which the following are the most common: Weakness, nausea, vomiting, coryza, disorientation, aphasia, hallucinations of sight and hearing, and anginal symptoms. Exfoliative dermatitis has been observed. Fatalities following delirium, convulsions, and coma are reported. It may take several days for symptoms to clear.

Of the many other drugs which have had their day in the attempt to lower blood pressure, only the nitrates continue to be used to any extent. The main use of these is for a temporary amelioration of symptoms associated with the elevated arterial tension.

Surgical Treatment.—Three neurosurgical procedures have been done to a sufficient degree to afford an approach to a true evaluation of the usefulness of these operations. Crile performs the celiac ganglionectomy, Adson the subdiaphragmatic splanchnic and lumbar sympathetic resections, and Peet the supradiaphragmatic splanchnicectomy. It seems to me fair to say that there is no adequate scientific rationale for any of these procedures. It also appears to be only fair to a patient who has had careful study and management by medical measures without success that he be given the opportunity to decide whether or not he wishes to risk such an operation. There is no denying the occasional gratifying results of each of the operations.

UROLOGICAL ASPECTS OF HYPERTENSION

By Frank Bicknell, M.D.
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As a result of the researches of Goldblatt and Page there has been considerable interest created in the etiological relationship of the surgical kidney to hypertension. Study of the incidence of hypertension in patients with surgical kidneys reveals that there is no higher incidence here than in a similar group of controls. The age factor seems to have more influence than any other; thus hypertension is common in patients with hypernephroma but on analysis of the cases it is seen that the majority of them are in the sixth decade or over. The incidence of hypertension with renal tuberculosis is very low but here again the age factor is apparent, as most of these patients are in the early decades.

Analysis of surgical kidneys reveals that there is only one factor that has any clear correlation with the incidence of hypertension, that factor is chronic infection with sclerosis of the renal tissues. Thus, in chronic pyelonephritis there is a high incidence of hypertension when there is an associated atrophy of the renal tissues and a low incidence when there is no associated atrophy. This can be dramatically demonstrated by an analysis of the results of the surgical treatment of unilateral atrophic pyelonephritis; here we are able to obtain a definite fall in blood pressure in 70 per cent of the cases operated upon. However, it is difficult to prognose how the hypertension is going to respond to surgery in each case preoperatively, the known duration of the hypertension; the presence of secondary hypertensive changes in other tissues and the health of the other kidney must all be taken into consideration in determining the prognosis.

The incidence of hypertension associated with nephrolithiasis is no greater than is found in a group of controls. However, upon analysis of the cases it is found that when there is an associated infection and atrophy of the renal tissues with the stones that the incidence of hypertension is about three times as common as when the stones are uncomplicated by these factors. This

is further demonstrated upon analysis of the results of surgical treatment of renal stones; when radical measures as nephrectomy are used the blood pressure returns to normal much more often than it does when conservative procedures such as nephrostomy, pyelotomy and nephrotomy are used. Operation may in some cases be considered the etiological factor, for it has been observed that often after very severe kidney operation for stone where the stone has been elusive and there has been much operative damage to the cortex, hypertension has developed in patients who had normal blood pressures before the surgery was performed. In these cases the hypertension has responded well in most cases to the removal of the damaged kidney.

Back pressure on one kidney apparently has no effect upon the blood pressure. Thus the incidence of hypertension with hydronephrosis is no greater than with the controls; where hypertension is associated with hydronephrosis the size of the hydronephrotic sac has no correlation with the degree of hypertension. Also the size of the hydronephrotic sac has no correlation with the incidence of hypertension. In spite of this lack of correlation between hydronephrosis and hypertension about twenty per cent of the cases of hydronephrosis with hypertension respond favorably to surgery. Here also the response seems to be better when nephrectomy is performed than when there is an attempt made to correct the hydronephrosis by conservative surgery.

Thus in analyzing the relationship of hypertension to surgical kidneys we must conclude that we may expect good results in the improvement of the hypertension with the removal of chronic atrophic pyelonephritic kidneys and that with stones, tumors and tuberculous infections and hydronephrosis we may expect an occasional improvement in the associated hypertension but that in most cases the hypertension is not the result of the surgical kidney but is a coincidental affliction.

RECENT STUDIES ON HYPERTENSION

By Paul Noth, M.D.
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■ THE controversy over the etiology of essential hypertension really started in about 1872 when Gull and Sutton expressed their opinion that a hyalin-fibroid change in minute arteries, arterioles and capillaries of various tissues was the primary and essential phenomenon in cases of chronic Bright's disease with contracted kidneys. They stated that this degeneration of the blood vessels commonly began in the kidneys, but that it might begin in other organs so that hypertrophy of the heart with degeneration of the blood vessels might be found associated with healthy kidneys. Clifford Albutt and Janeway subscribed to this view, the latter believing that hypertension may arise in "primary irritability of the vasoconstricting mechanism from unknown, probably extrarenal causes, which lead eventually to arteriolar sclerosis." Among the German clinicians, Fahr continued to regard all hypertension as secondary to renal disease while Volhard, though temporarily subscribing to this idea, changed his opinion in regard to benign hypertension, which he felt, at least in many instances, was due to an increase in the sensitivity of the vascular system and had nothing to do with the kidneys. The opinion in this country generally followed the viewpoint which regarded essential hypertension as usually independent of renal disease, the renal lesion being only a part of a diffuse vascular disease. This separation of essential hypertension from forms of renal hypertension was based on pathologic evidence—the finding of minimal or no renal lesions in clinical cases of hypertension with arteriolar changes in various other organs—and partly on the clinical evidence that one found hypertension without clinical evidence of renal damage, without the anemia which was usually found in cases of chronic nephritis, and with hypertensive retinopathy which was, not infrequently, quite different from that seen in chronic nephritis. It was recognized that the end stages of the two diseases might be practically identical, both clinically and pathologically in some cases. These points are mentioned to emphasize the fact that our concept of the cause of essential hypertension must take into account the weight of the studied opinions of experienced clinicians and pathologists and not veer too easily to another concept, "renal hypertension," which is based largely on a different chain of evidence, that of the production (in animals) of hypertension with its vascular sequelæ in a form closely resembling human essential and malignant hypertension. There is also certain other evidence in support of the latter concept. This is based on complicated chemical interactions, as yet incompletely understood.

Prior to Goldblatt's work on this subject, which first appeared in 1932, a number of workers had produced experimental hypertension by various operations upon the kidney and its blood supply, but most of this work resulted in only slight and temporary hypertension which bore little resemblance to human hypertension. Goldblatt, by varying the amount of constriction of the renal arteries, is able to produce one form of chronic hypertension which has lasted as long as five years in some experiments, and is accompanied by only slight degrees of renal damage. Another form of hypertension (much more fulminating in its course) is produced by severe constriction of both renal arteries. This type is accompanied by retinal lesions consisting of papilledema, hemorrhages, exudates, and frequently detachment of the retina. The first type closely resembles human "benign" hypertension; the second, human "malignant" hypertension. This experimental hypertension seemed to be due to the liberation of a chemical substance by the ischemic kidney into the blood stream, which substance, in some way, directly or indirectly, caused arterial vaso-constriction. The effect of nervous reflexes was excluded by the demonstration that even the removal of practically all the sympathetic nerve fibers supplying the vascular system did not prevent or abolish the hypertension. For a while the idea was entertained that certain endocrine products, possibly of the pituitary gland or the adrenal cortex, were an essential part of the humoral mechanism of hypertension; but later studies have isolated other substances, presumably not glandular in origin, to complete this mechanism.

Tigerstedt and Bergmann in 1898 discovered that extracts of kidneys contained a protein which, when injected intravenously, caused a prolonged rise in arterial pressure. Recent purification of renin by Page has shown that renin alone is not a true pressor substance, but that it reacts with a substance in the pseudo-globulin fraction of blood called renin-activator to form a third substance called angiotonin. Angiotonin is in turn activated by another substance called angiotonin-activator to form the active pressor substance. Also concerned in this mechanism is a substance present mostly in the kidney which is called "angiotonin-inhibitor." Thus, the kidney can apparently not only initiate hypertension but may also counteract it, and there is some evidence to indicate that the severity of the hypertension depends upon the ratio of ischemic to normal renal tissue.

Page emphasized the point that interference with renal blood flow causes the liberation from the kidney of increased amounts of renin. This reacts in the manner described and produces more interference with renal blood flow, thus establishing a vicious cycle.

Further studies by Page and others have added evidence to the possible common mechanism if not the common genesis of experimental renal hypertension and human essential hypertension. Page has demonstrated increased amounts of pressor substance in the blood of hypertensive patients and experimental hypertensive animals. Also, by means of studies of renal blood flow and of glomerular filtration in both hypertensive patients without evidence of renal damage as measured by the urea clearance test, and in dogs with experimental hypertension, Page and others have demonstrated in both an increase in glomerular filtration in proportion to the renal blood flow. This proportionate increase in filtration is explained by an increase in the pressure in the glomerular capillaries due to spasm of the efferent arterioles of the glomeruli.

Page and his co-workers and, independently, Harrison and his group, have recently prepared extracts of normal kidneys which contain this angiotonin inhibitor or antipressor substance. With it they have been able to produce a fall in blood pressure in some animals with experimental hypertension. This fall is usually short in duration and does not appear until two to four days after injection. The substance seems to have a cumulative action, excessive dosage causing a continued fall in blood pressure with production of a shock-like picture and death. In the animals studied by Page which had developed the retinal picture of malignant hypertension, this extract caused the disappearance of papilledema and retinal hemorrhage. In twenty-two instances it apparently saved the lives of these animals since, if the experiment is allowed to run the usual course, they die quite uniformly within a certain period.

Page also reported his results in the treatment of a small group of patients with benign and malignant hypertension. In nine patients

with fixed essential hypertension there was a considerable fall in blood pressure, although it only occasionally returned entirely to normal. Headache, dyspnea, and other symptoms were considerably relieved. Of the six cases with malignant hypertension, two were comatose and a third was having convulsions on admission. In three of the six there was dramatic clinical improvement consisting of a fall in blood pressure, regression of ocular findings with restoration of vision, and relief of headaches. Three of these patients died subsequently, one after stopping treatment of his own accord. In general, there was little effect in renal function in the cases studied, although renal blood flow increased in some.

Now what does this all mean in considering the future of the treatment of essential hypertension? Obviously the number of human cases treated by Page is too small to permit drawing any definite conclusions. However, the present results and the possibility of progress in the preparation of purer, more potent extracts are promising. At least one reliable worker has had great difficulty in preparation of the anti-pressor extract and the production of definite results in dogs with renal hypertension. Goldblatt is working on the problem and is said to have arrived at some conclusion as to the nature of the anti-pressor substance.

There are still several things to explain before the renal origin of essential hypertension can be considered to be established. If one assumes that essential hypertension is renal in origin what produces the original abnormality in the blood flow through the kidney which initiates the vicious circle leading to hypertension? Could this be a vasomotor instability which is inherited—as careful studies indicate that essential hypertension follows an hereditary pattern? Might renal denervation performed early in the course of hypertension increase the blood supply and relax the efferent glomerular arterioles and so make unnecessary the prolonged administration of the renal extract?

A Simple Qualitative Test for Sulfonamide Drugs in Urine*

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■ THE sulfonamide drugs are excreted chiefly through the urinary tract. Small amounts may be lost in tears, saliva, milk, sweat, and feces. Quite often in the treatment of a patient, it is of importance to determine qualitatively the presence of the drug in the urine.

In usual sulfa drug therapy from 200 to 350 mgm. per 100 c.c. of the substance is excreted in the urine. Upon addition of 1 c.c. of a 2 per cent solution of paradimethylaminobenzaldehyde in 20 per cent hydrochloric acid, to the urine of individuals receiving this therapy, a precipitate forms immediately.

If the specimen should contain less than 25 mgm. per cent, a yellowish green color appears. In urine that has a concentration above 25 mgm. and less than 250 mgm. per cent, a yellow precipitate is seen. Over 250 mgm. per cent will produce a heavy orange precipitate. All of the concentrations given are in terms of free sulfonamides; the acetylated form is not detected by this method.

The test is best performed by the addition of 1 c.c. of the paradimethylaminobenzaldehyde solution to 10 c.c. of urine which has been cooled to room temperature. The method is unsuitable in patients who are jaundiced or contain abnormal amounts of urobilinogen in the urine.

Several compounds will give positive reactions, but these are never given in sufficient quantities to produce a positive reaction when excreted in the urine.

The testing solution is kept best in a dark container. The aldehyde may be purchased from the Eastman Kodak Company of Rochester, New York.

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Success in the use of chemotherapeutic agents in combating infectious diseases revived the hope that eventually a substance will be found that will be useful clinically in the treatment of tuberculosis. Promin, one of the compounds used experimentally, has already been discussed in the public press.—*Tuberculosis Abstracts,* June, 1942.

Functional Chest Pain*

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■ IN recent years the public has become aware of the association of chest distress with serious heart disease. It is less generally understood that chest pain, of various types, may occur in the absence of organic cardiac abnormality. The incorrect interpretation of distress may result in unnecessary mental and physical invalidism.[10]

In this group of cases of chest distress several recognized conditions were intentionally omitted. Patients suffering the well known, but occasionally misinterpreted, pain and tenderness over the cardiac apex in advanced rheumatic or hypertensive heart disease were not included. Evident cervical arthritis when productive of chest or shoulder pain was also excluded. Scalenus anticus syndrome was omitted.[8] Periarthritis of the shoulder, which may occur with or without coronary artery disease, was excluded by local examination.[1,6] One malingering patient was omitted. Patients with slipped rib cartilage[5] or migraine of the chest were not recognized.[2] Herpes zoster did not occur during the period of the study.

The records of 227 patients who complained of chest distress were reviewed. All of these patients believed or had been advised their distress was due to heart disease. Organic disease was present in forty-three patients of whom twenty-seven were cases of coronary artery occlusion, one of dissecting aneurysm, and one of pericarditis in a young man. Of the remainder, four had spontaneous pneumothoraces, three had pulmonary infarctions, and there was one case each of acute fibrinous pleurisy, metastatic carcinoma and pneumonocele. Four patients presented an acute myositis. Nineteen patients were judged to be having referred pain. Nine of these were from gastro-intestinal disease, three from acute distress of radicular origin, and one from a traumatic diaphragmatic strain. Four patients had chest pain in association with acute bronchitis and two suffered prolonged attacks of substernal oppression in association with paroxysmal auricular tachycardia.

Thus of the total 227 patients, 165 (72 per cent) were experiencing distress of functional origin. In ninety-three patients (40.9 per cent) this distress was judged to be angina pectoris, a symptom requiring serious consideration and often resulting in considerable disability or death. Seventy-two patients (31 per cent) were judged to be distressed by symptoms of non-cardiac origin. It is necessary that equal care, time and ingenuity be expended on these patients. A physician, remembering previous unexpected disasters in patients not recognized as having serious heart disease, may be swayed toward a diagnosis of angina pectoris. This diagnosis, if not justified, will result in unnecessary mental anguish and economic loss. However, if the patient be experiencing cardio-neurotic distress and a correct interpretation is made, the therapeutic problem for the physician is no less difficult. A brief assurance to the patient, with no treatment for the distress, will not be adequate. A statement that nothing is wrong and that the patient is nervous will be most unsatisfactory. If medical shopping and a lessening of invalidism is to be achieved, responsibility must be assumed by a competent medical advisor. A longer acquaintance often increases confidence by both the patient and the physician, and the personal satisfaction derived is well worth the time and effort required.

CHEST PAIN

	No.	Male	Fem ale	Per Cent of Total
Cardiovascular				
Organic	29	26	3	13
Functional (Angina)	93	70	23	41—
Non-Cardiac				
Organic	14			
Referred	19			
Functional	72	34	38	31+
Total	227			

*From the Department of Medicine, Henry Ford Hospital, Detroit, Michigan.

The diagnosis of angina pectoris rests upon the interpretation of subjective sensations. It may be present without detectable heart disease. It is present in patients whose electrocardiograms are normal as well as in those whose electrocardiograms are abnormal. Not infrequently, a therapeutic trial of nitroglycerin or amyl-nitrite aids in arriving at a diagnosis. This symptom, regardless of the location of its onset, is seldom referred to the same root zone in the back, at least not until adjacent root zones anteriorly have been involved.[4] Hyperesthesia or deep tenderness are rather infrequent. Although the pain may have occurred repeatedly and have been associated with apprehension, its localization remains vague. Finger-point designation of the site of pain is unusual. Whatever the character of the pain, it recurs consistently with exertion.

	Angina Pectoris	Cardiac Neurosis	Psychoneurosis	Neuromuscular
Conviction of heart disease	Varies	++++	++	Slight
Duration of symptoms		Years	Months	Days—weeks
Pain character	Many types	Dull "heartache"	Variable	Sharp
Location	Substernal	Lower left chest	Left chest	Bilateral scattered
Radiation	To adjacent root segments anteriorly	Segmental	Jumps and skips adjacent root zone segments	?
Duration	Few seconds to minutes	Hours—days steady	Brief, recurring	Transient
Tenderness	0	Superficial ++++ Deep ++	Superficial ++ Deep—rare	Not frequent
Produced by	Exertion Excitement Meals	Excitement	Activity Fatigue	Motion of trunk

The remaining seventy-two cases of functional chest distress constitute 31 per cent of the total. The average age of these patients was 42.5 years. The sex distribution was about equal. Factors other than fear about the heart contributed to mental anxiety in the majority of the seventy-two patients.

In clinical practice evidences of neurotic tendencies were frequently noted. These included sighing respirations, absent gag reflex, and tremor of the tongue or eyelids. Reduced threshold for pain was often demonstrated. Globus hystericus was not an infrequent subjective sensation. In some patients a symptomatology similar to neuro-circulatory asthenia had previously caused concern regarding the heart. In women at the menopause a similar group of symptoms frequently preceded the development of chest pain.

In this group of seventy-two patients a number of cases were distinctly similar and easily recognized. The term cardiac neurosis has been used for this condition.[7]

In this classification, in a broad sense, cardiac neurosis is used to designate hypochondriasis—a type of psychoneurosis with fixation on the heart. Psychoneurosis refers to those patients of fundamental neurotic tendency in whom fear regarding the heart is one episode of recurring anxiety about their physical condition. These patients had previously had and will later have symptoms of neurogenic origin relating to other organs.

The accompanying chart is for the purpose of indicating in a general way the characteristics of the groups developed in this survey. The cardiac neuroses and the psychoneuroses occur in the same type of person and differ chiefly in duration and degree of symptoms.

Cardiac Neurosis

Fourteen patients (19 per cent), presented characteristics of a well established cardiac neurosis.[7] These patients believed without doubt that heart disease was present. Symptoms had been present from one to six years. The character of

the distress varied widely, but in association with other sensations there was usually a steady dull "heartache" beneath the left breast. Radiation, if it occurred, included a distribution to the back at the angle of the left scapula or the lower interscapular area. This corresponded in location to the same root zone as the location of the distress anteriorly. Not infrequently, even when the patient had denied such radiation, upon examination with pressure on the area posteriorly the patient would then admit frequent radiation to this location. Both superficial and deep tenderness were elicited in these patients. The duration of part of the distress was often hours and at times days. Excitement, and other nervous factors precipitated the pain more frequently than did motion of the trunk or physical fatigue.

Two case histories are very briefly summarized.

Case 1.—Female, thirty-nine years, separated from husband four years. Given digitalis elsewhere. Pain in left chest with soreness and tenderness for one year. Functional dyspnea, globus, and palpitation, two to three days at a time. Electrocardiogram: T waves diphasic in Leads II and III. Diagnosis: no heart disease; cardiac neurosis. "This patient was previously considered to have serious heart disease and the question of life expectancy had been raised. Response to management was gratifying."

Case 2.—Female, forty-six years, housewife, recurring gall-bladder disease eight years ago. Confined to bed six years. Frequent "nervous spells"—colitis. Family strife. Reads medical literature. Symptoms confined to left side of body. "Weakness around the heart." Sharp stabs; precordial pain; aching left side of neck, twenty minutes' duration; fatigue causing patient to go to bed. Diagnosis: no heart disease; cardiac neurosis.

Psychoneurosis

Thirteen of the seventy-two patients (18 per cent) presented distress of such widely varying character, location and radiation that general statements lack usefulness. The continued duration of symptoms was often less than in those with a cardiac neurosis. In several instances a resumption of symptoms occurred after months or years of freedom from pain. Not infrequently, it recurred soon after the relief of some other functional distress, such as nervous indigestion. The radiation was infrequently segmental and often skipped adjacent root segments anteriorly. Angina pectoris is also infrequently segmental, but radiates by involving adjacent root segments instead of jumping them. Deep tenderness was rare, and superficial tenderness less constantly severe. The immediate onset was often associated with unusual motion of the trunk or with *fatigue*.

Case 3.—Male, fifty-four years, insurance salesman. Fast heart in Army, 1918. Has wife count pulse. Reads encyclopedia. Crushing sensation to left of midsternum. Aching at the angle of the left scapula. Blood pressure 144/100. Split first tone apex. Diagnosis: no heart disease; psychoneurosis. "In this patient temporary recovery resulted from simple reassurance."

Case 4.—Male, fifty-two years, executive. Fatigue, lack of "pep." Eight weeks pressure left upper chest, fifteen minutes to one hour. Radiated to left axillæ. Not related to exertion. Blood pressure 90/60. Electrocardiogram elsewhere, on the basis of which he was advised absolute bed rest. Admitted after ten days at home. Basal metabolic rate minus 11 per cent. Blood pressure 94/56. Electrocardiogram: "T waves flat in lead I, low voltage T II and T III. Lead C. F. IV normal. No progressive change. Diagnosis: no heart disease, hypothyroidism possibly related. "Mild sedative, thyroid, and exercise program resulted in recovery."

Neuromuscular

Forty-five patients (62 per cent) suffering chest pain of functional origin, could not be reasonably placed in either of these two groups. These miscellaneous cases are patients whose distress varied widely in location and duration. Consistency was absent. Such patients were less easily recognized than those with a cardiac fixation, or those with a history of recurring psychoneurotic disabilities. Often the patient, when the symptoms first occurred, had no idea that the heart might be responsible. Careless remarks of the initial professional advisor, types of medication given, or some tragic occurrence to a friend lead to a beginning concern regarding the heart. In general, successful management was more easily accomplished.

Considerable difficulty is encountered when cardio-neurotic distress occurs in a patient with organic heart disease.[9] The recognition of the non-cardiac origin of these disturbances may prevent unnecessary invalidism.

Case 5.—Female, forty-eight years, widow. Known rheumatic heart disease with mitral stenosis. Pains in the arms, precordium, and in the left scapular area described as numbness. Shaking sensations in the legs. Dizziness, palpitation, and dyspnea accompany. Duration five minutes to continual distress of several days' duration. Occurred over a three-year period. Had been

given digitalis several times and confined to bed on occasions. Only son unmarried. Symptoms recur whenever plans for his marriage are made. Diagnosis: rheumatic heart disease, mitral stenosis, Class I, functional capacity. "This disability was judged to be functional in character in a patient with organic heart disease."

Case 6.—Male, fifty-three years, Hebrew, owner dress shop. Choking in throat. Burning tongue. Faint sensations. Burning upper sternum. Onset with resumption of activity after inactivity. Duration ten minutes. Radiation left shoulder. Several times a day. Relieved by nitroglycerin. Electrocardiogram 1935 reproduced. Considered as having angina pectoris. Treatment, advice, reduction of obesity, partial success. Electrocardiogram unchanged over one year period.

Medical advice elsewhere 1936 to 1941. Under this management in 1937 suffered severe pain in the right chest, and fainted. Placed in oxygen two days. Electrocardiogram during and after remained the same as in 1935. Discharged after five days. In 1941, faintness, gurgling in throat, and pallor of a few minutes' duration. These two severe and additional mild attacks were preceded by nausea. They were followed by tachycardia of 110 to 130.

June 1941, again seen by the authors. A hyperactive carotid sinus reflex was present. Electrocardiogram reproduced. Rapid improvement in past four months under therapy which included elixir of phenobarbital, tincture of belladonna, ephedrine amytal capsules and small daily doses of thyroid substance.[3] Weight loss and increased exercise advised. Still suffers burning in tongue, aching left pectoral and angle of left scapula and numbness of thighs. He has resumed more business and physical activity than for the preceding eight years.

This case represents a patient who may have angina pectoris but whose chief disability has been of functional origin. The concern shown by each new physician, because of the abnormal electrocardiogram, has further handicapped the patient. The electrocardiogram has shown no change and is of the type rarely seen in young healthy persons.

When a conclusion has been reached that functional chest distress is present, with or without heart disease, the results of therapy are often successful.

Treatment

Of the Pain.—Demonstration of local tenderness and its explanation. Local treatment by heat, massage, and surface applications. Liquid salicylates orally.

Of the Patient.—Mental. Explanation of the surety regarding the heart. Simplification of living. Sedation.

Physical.—Sleep. Exercise schedule. Mid-day rest. Thyroid if indicated.

In the few instances where used, the temporary relief of pain by the intradermal injection

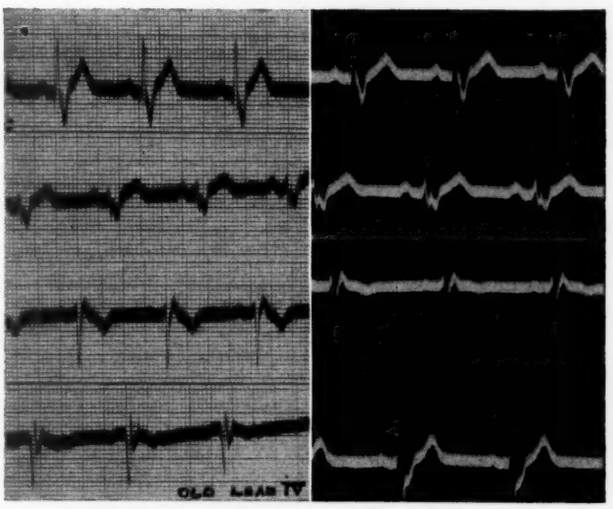

Fig. 1. Case 6. Showing very little change in the two curves taken at an interval of seven years (left, 1935; right, 1941). This is the type of bundle-branch block seen rarely in young healthy persons.

of novocain has not been of ultimate value. Patients with a deficient thyroid secretion often suffer muscular and soft tissue distress, which when present in some area of the numerous muscular and tendonous structures of the chest may suggest cardiac pain. Other than the simple measures above outlined, treatment is primarily an *individual matter,* requiring time and patience.

In recent years invalidism resulting from misinterpretation of chest pain has occurred with increasing frequency. In 227 consecutive patients suffering such distress, seventy-two (31 per cent) of the total were judged to be suffering distress of functional origin which was not related to the heart.

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Acute Meningo-Encephalitis Treated with Sulfanilamide*

Case Report

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■ VIRUS diseases in general have not been thought amenable to treatment with the sulfonamides. Animal experimentation with these drugs in certain of the virus diseases has been very limited and so far unsatisfactory, and a search of the literature fails to reveal any case of an encephalitis so treated in this country. Isolated cases have been reported in Germany and in South America. In the case reported here an acute meningo-encephalitis, probably of virus origin, seemingly responded to treatment with sulfanilamide.

Case Report

An Italian-born woman, thirty years old, was first seen on April 4, 1939, complaining of a constant severe headache of two days' duration, dizziness, faintness and a sensation of fullness in the head. After taking a cathartic (magnesium sulphate) she had experienced two attacks of vomiting of normal gastric contents. There was no projectile vomiting at any time. No abnormalities were noted at this time in neurological or general examination, although her temperature was slightly elevated. During the next five days the patient's headache increased in intensity and was associated with nausea, vertigo, and marked flatulence. Her daily temperature ranged from normal to 101° and 102° F. Neurological examination continued to disclose no abnormalities until the day of admission.

The past history of the patient revealed that in 1927 she had undergone a salpingectomy elsewhere and a microscopic diagnosis of tuberculous salpingitis had been made. In 1931 she developed an abscess of the right forearm which was excised and drained. This healed spontaneously and was considered to be non-tuberculous in origin. In 1933 a tonsillectomy was performed here and the tissues were examined for evidence of tuberculosis, but none was found. The patient's family history and marital history were without significance.

On April 9, eight days after onset of symptoms, the patient became acutely ill and was admitted to the hospital. Neurological findings which were now positive included a definite rigidity of the neck, an unsustained bilateral ankle clonus which was somewhat more marked in the right ankle, and Kernig's sign. Examination of the fundi, the eyes, and the deep and superficial reflexes yielded negative results. The Brudzinski reflex, Hoffman's, Babinski's and Oppenheim's signs could not be demonstrated. The heart, lungs and abdomen were normal. Blood pressure was 110 millimeters of mercury systolic and 80 millimeters of mercury diastolic. The value for hemoglobin was 85 per cent per 100 cubic centimeters of whole blood, the leukocytes numbering 15,000 per cubic millimeter of blood. Results of urinalysis were essentially negative.

Spinal puncture was made on the day of admission, and the patient's headache was temporarily alleviated by this procedure. The fluid obtained was clear, colorless and under slightly increased pressure, with a cell count of 224 per cubic millimeter, 90 per cent of which were lymphocytes. Globulin was slightly increased and the dextrose content was 49 milligrams. The Kline test was negative. Guinea pigs were inoculated with the serum obtained from this and subsequent lumbar punctures.

On the second hospital day the patient became apathetic and irrational, ate poorly, developed an intense thirst and still complained of headache of some intensity and a stiff neck. The headache was again relieved by lumbar puncture. The fluid obtained was clear, colorless and under slightly increased tension. The cells now numbered 230, 93 per cent of which were lymphocytes and 7 per cent polymorphonuclear leukocytes. Examination of the blood gave a value for hemoglobin of 80 per cent per 100 cubic centimeters of whole blood. There were 3,710,000 erythrocytes and 8,300 leukocytes per cubic millimeter of blood, having a differential of 70 per cent neutrophils and 30 per cent lymphocytes. Roentgenographic examination of the chest and skull revealed no abnormalities. A suggestive clonus persisted in the right ankle. The patellar reflexes were diminished in activity and reaction time, and Brudzinski's sign was now positive. In the belief that we were dealing with a form of meningitis, oral administration of sulfanilamide, in doses of 20 grains (1.5 grams) every four hours, was begun and was continued for ten days, when the dosage was decreased.

Signs of meningeal irritation subsided gradually. On the sixth hospital day the patient's temperature began a gradual return to normal, the neck was less rigid and the headache greatly diminished. On the ninth hospital day the neurological findings became negative

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and remained so. By the eleventh day the headache had ceased entirely and the neck soreness had disappeared. The patient remained mentally sluggish, however, during the greater part of her stay in the hospital. The original dose of 20 grains of sulfanilamide every four hours was decreased on the tenth day to 15 grains (1.28 grams) three times a day, and on the fourteenth day it was discontinued entirely. On this day the value for hemoglobin in the blood was 78 per cent per 100 cubic centimeters of whole blood. Erythrocytes numbered 3,650,000 and leukocytes 8,000 per cubic millimeter of blood, having a differential of 58 per cent polymorphonuclear leukocytes, 40 per cent lymphocytes and 2 per cent eosinophils. During the course of administration of sulfanilamide a complete blood count was made daily, and determination of sulfanilamide in the blood was kept around 10 milligrams per 100 cubic centimeters of whole blood. Not until the sulfanilamide was stopped on the fourteenth day did any significant toxic reaction occur. On the sixteenth day the number of leukocytes in the blood suddenly fell to 3,800 per cubic millimeter. On the seventeenth day the value for hemoglobin dropped to 66 per cent per 100 cubic centimeters of whole blood and suitable therapy was instituted. The mild leukopenia and secondary anemia subsided and gradually returned to normal. Blood cultures revealed no microörganisms.

Another lumbar puncture was done on April 28, the twentieth hospital day, the fluid obtained being clear, colorless and under normal pressure, with a cell count of 17 lymphocytes per cubic millimeter of fluid and 10 polymorphonuclear leukocytes. The patient's condition was now greatly improved, and on May 8, thirty days after admission, she was discharged. Her neurological responses at the time of discharge were normal and she was mentally alert.

No other members of the patient's household experienced clinical symptoms of any kind during the illness of the patient, and no clue was obtained as to a possible source of contact of the disease. Guinea pigs inoculated with each specimen of cerebrospinal fluid withdrawn were negative for tuberculosis. Blood drawn six months after onset of the illness was sent to the Rockefeller Institute and the National Institute of Health for determination of the presence of neutralizing antibodies against the virus of lymphocytic choriomeningitis. There was no evidence of the specific antibodies at that time. Periodical examination since discharge of the patient from the hospital has not revealed any sequelæ or clinical evidence of pathology.

Discussion

In 1939 McKinley[3] and his co-workers reported their results with sulfanilamide, prontosil and sodium sulfanilyl sulfanilate in treating rabbits innoculated with several virus diseases, including herpetic encephalitis, choriomeningitis and St. Louis virus encephalitis. They concluded that none of the compounds was of any therapeutic value in the virus diseases studied and that the possibilities of successful chemotherapy in the virus diseases were not particularly encouraging. Sulfanilamide has, however, been suggested in human choriomeningitis. In 1940 Flexner[2] and his co-workers reported studies on the therapeutic effects of vitamin C, sulfanilamide and pitressin on herpes encephalitis in rabbits. Seven rabbits treated with sulfanilamide failed to show any alteration in the fatal course experienced in the other groups of virus infected animals. Two animals (28 per cent) gave no manifestation of paralysis. Morris and Murray,[4] however, reported successful treatment of meningo-encephalitis associated with canine distemper. Bär,[1] investigating some suspected virus diseases, obtained very satisfactory results in treating experimental venereal lymphogranuloma with certain of the sulfonamides. He concluded as a result of his work and that of other investigators that only in the aforementioned disease, in trachoma, and in certain symptoms produced by the Rickettsia group of organisms, has a noticeable therapeutic effect been obtained experimentally.

Wilhelm,[6] in 1938, reported a case of encephalitis, with recovery of the patient, in which intraspinal injections of prontosil were made. Savino[5] recently treated a patient sixty-seven years old, ill with meningo-encephalitis caused by the Listerella monocytogenes, with sulfapyridine and noted a favorable effect within twelve hours. The patient had been semi-comatose and regained mental faculties almost immediately after treatment. Treatment was continued for eight days and recovery was uneventful.

Meningo-encephalitis must be distinguished from "benign" lymphocytic choriomeningitis or lymphocytic meningitis, usually, but not always, benign. Our only means of differentiation in this case was the Rivers test for neutralizing antibodies and diagnostically eliminating other sources of infection.

Conclusion

It would appear in this case that treatment with sulfanilamide had accomplished two things: (1) that the duration of the illness was shortened, and (2) that there were no crippling or debilitating sequelæ such as are often left in the wake of meningo-encephalitis. Whether or not

these results may be ascribed to the chemotherapy employed is debatable, but the clinical course of the disease would seem to have been greatly influenced by sulfanilamide therapy.

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MSMS

Diagnosis of Cancer*

By Henry J. Vanden Berg, M.D.

Grand Rapids, Michigan

HENRY J. VANDEN BERG, M.D.

M.D., University of Michigan, 1905. Chairman of the Executive Committee of the Michigan Division of the Field Army of the American Society for the Control of Cancer. Chairman for Michigan, American Society for the Control of Cancer. Member, Board of Directors of the American Society for the Control of Cancer. Fellow, American College of Surgeons. Member, American Association for the Study of Goiter; American Society for the Control of Cancer; Michigan Governing Committee of Gorgas Memorial Institute of Tropical and Preventive Medicine; Michigan State Medical Society.

■ THE diagnosis of cancer in its early curable stage is, I believe, too generally held to be difficult. Cancer may occur anywhere in the most out-of-the-way, deep-seated, hidden places, since any of the body cells may take on a malignant behavior of growth. Moreover there may not be any symptoms or signs to betray its presence, in which case the diagnosis of early cancer may be difficult or impossible. However, in the large majority of cancers, its presence is betrayed in the early stages with symptoms and signs. If this is so, and it is, it naturally follows that we should be thoroughly familiar with the early symptoms and signs, or they won't mean much to us; once we are, we begin to suspect cancer.

To suspect cancer is the most important consideration in cancer diagnosis. When we reach that point, we have become cancer-conscious.

The layman is being taught to recognize the early symptoms and signs of cancer, by means of the radio, magazine articles, health columns in the press and, more specifically, through the educational efforts of the Women's Field Army, a Division of the American Society for the Control of Cancer. As a result of this education of the public, cancer victims do come to us earlier. In this educational program, yearly examinations are also advised and even stressed, because *precancer lesions or early cancers may at times be recognized by an alert physician before symptoms or signs of it appear.*

All of this imposes a greater responsibility upon us physicians and we must meet it; if the patient comes too late, we cannot be held responible for the outcome; the best we can do in that case is to retard the growth, perhaps, and to alleviate suffering in one way or another, but if he comes early enough and the diagnosis is missed, it is costly. To the victim, it means that he pays with his life, and to us it follows that we physicians are criticized and discredited, and justly so.

The majority of cancers we meet are in the skin, the alimentary, the genito-urinary, and the respiratory tracts. Those in the skin and lip are, of course, in plain sight; those in the mouth nearly so. The ones that are deep-seated and hidden usually betray their presence in their early stages with symptoms and signs. These symptoms and signs will be experienced in one way or another in the tissue or organs in which the growth is located. Stomach cancer will cause stomach symptoms, loss of appetite and indigestion—not bladder symptoms. Early intestinal cancer will cause a change in the bowel habit, namely, constipation or increased constipation. Cancer of the rectum causes rectal irritation and increased frequency. A feeling of relief does not follow evacuation. Sooner or later blood and mucus appear. Cancers of the uterus and cervix and of the urinary tract will be betrayed by bleeding. Lung cancers usually betray their presence with a dry, hacking cough, deep-seated pain and bloody sputum. One needs to remember, then, that cancers in these common,

*Presented at the Seventy-sixth Annual Meeting of the Michigan State Medical Society in Grand Rapids, September 19, 1941.

deep-seated locations produce changes in function of the organs in which they are located.

Diagnostic Classification

To further simplify the problem of diagnosis, it is helpful to classify cancers into three groups.

Group 1.—Those openly visible to the patient and physician, as those in the skin, lip and mouth. Practically no one should die of cancer of the skin and lip because they are in plain sight, and those of the mouth are nearly in plain sight. Yet, between the two, there are nearly seven thousand deaths a year from them. It is only necessary to understand and realize that any blemish, thickening or ulceration of the skin, lip or mouth may be cancer. If it is cancer, it is just as much cancer in its early stage as when it is advanced. When such lesions are presented, it becomes our responsibility as physicians to take immediate steps to establish a diagnosis.

Group 2.—In this group can be placed those cancers that are not in plain sight, yet accessible to direct inspection or palpation, as, for example, those of the breast and rectum, and those in sight with the aid of simple office equipment, as, for example, the vaginal speculum. Lumps in the breast have to be definitely diagnosed. The common cervical erosion may be satisfactorily treated in the office by means of electro-coagulation, an important preventive measure. If malignancy is suspected, biopsy material must be obtained for examination. Growths in the rectum can be discovered with the examining finger. The proctoscope is a simple diagnostic instrument that can be used by anyone for visualization and obtaining biopsy specimens.

The average practitioner is not trained to examine the vocal cords or the larynx for suspected cancer, which one should suspect in the case of hoarseness that does not clear up in a week or two, but such a problem may be referred to the specialist who is everywhere available. These two groups, then, including cancer of the skin, mouth, larynx, breasts, cervix and rectum, comprise a large percentage of the total number of cancers we encounter. It is really simple up to this point to work out the diagnosis. One needs only to be visually and mentally alert, careful and painstaking in obtaining our histories and making physical examinations. Up to this point only the help of the pathologist is needed, perhaps the laryngologist, and in some cases, a consulting physician.

Group 3.—In this group some of the hidden cancers are really hidden, but again the majority of these are in the gastro-intestinal, genito-urinary and respiratory tracts and, fortunately, they usually give warning and danger signals, and there are helpful aids to establish a diagnosis. The roentgenologist aids in x-ray studies of the gastro-intestinal and urinary tracts. The gastroscopist is now also available with the gastroscope to directly visualize gastric lesions. The urologist with the cystoscope can view bladder lesions. The esophagoscopist, laryngoscopist and bronchoscopist can see lesions in the respective regions.

In mentioning the genital tract as being one of the systems in which the majority of cancers occur, the ovary, not an uncommon seat of malignancy, unfortunately does not disclose its presence with symptoms and signs in the early stages; when it does it may be hopelessly incurable. That, of course, applies equally to cancer of the breast, which does not produce symptoms in the early stages. The best protection afforded in the matter of cancer of the ovary is a yearly examination. Ovarian growths should be removed because a certain percentage is malignant, and, in the early stages, not incurable. In so far as breast cancer is concerned, women are advised to examine their own breasts and to report at once any lump they may feel.

In this group (3) more help is needed from the pathologist, roentgenologist, esophagoscopist, gastroscopist, bronchoscopist, the urologist, and perhaps again the experienced clinician.

Cost of Carelessness

I want to cite a few cases to illustrate how costly it is if the symptoms and signs of cancer brought to us go unrecognized. The last two stomach cancer cases I have seen were given no chance for their life because of this.

Case 1.—A man, aged sixty-five, who had always had good digestion, began to have loss of appetite and dyspepsia, which he reported. Something was given him to sharpen his appetite and to correct his digestion. His symptoms did not improve. He was losing weight and strength. For three years this patient remained under the same physician's care. At the end of this three-year period the patient reported that he felt a bunch in the region of his stomach. An x-ray study was then ordered to be made by his physician and the patient was then sent to a surgeon. Upon examination, besides finding a large growth the size of a split grapefruit in the epigastrium, there were secondaries in the glands above the left clavicle. Needless to say, the pa-

tient was weak, emaciated and cachectic—perfectly hopeless.

Case 2.—A man, aged seventy, who reported the same early symptoms of cancer of the stomach to his physician, was told that he was anemic and that by correcting it his stomach symptoms would probably clear up. He got no better so he consulted a second physician after six months and the diagnosis of anemia was concurred in by this physician, who gave the patient what he called "liver shots." He thought he felt a little better for a while, but he continued to lose weight and strength and he became more anemic. A year and a half later he consulted a third physician, who had no trouble to make a diagnosis because the patient then presented a large, irregular liver. An x-ray study was made, which disclosed a large growth in the stomach. An x-ray study should have been made in these two cases when the trouble was first reported.

Case 3.—A woman, aged sixty-eight, reported a lump in her breast to her physician two years ago. She was told that it probably did not amount to anything, and he did not advise her to have a study of it made or to get another opinion. It was suggested that she report again in six months, which she did, and again she was not given good advice. Now, at the end of two years, she came in with an advanced, ulcerating, bleeding cancer of the breast. The patient did her part, yet she pays with her life.

Case 4.—A recent patient who came in with an advanced carcinoma of the rectum that had been proctoscoped shortly before he came in, was told that his rectum was negative. This was a case of just-going-through-the-motions. Nothing could be more unfair to the patient—and to the profession, as well.

Case 5.—A woman, aged fifty-five, consulted her physician because of hemorrhoids. These she had and a hemorrhoidectomy was advised and carried out. Six months later she came in with a rather advanced carcinoma of the rectum. The physician who operated her failed in getting a history of carcinoma of the rectum, which she gave, and he did not examine the rectum, as simple an examination as it is, requiring only the use of one's finger.

One could go on and on citing experiences of this kind, all of which go to show how poorly informed too many of us are in the understanding of the early symptoms and signs of cancer. As already stated, unless we are familiar with the early symptoms and signs of cancer, they mean nothing to us. The examination of our patients must mean something. We must not only cover the ground, but it must be done thoroughly, painstakingly, and with understanding.

This is important—one is not going to make thorough, painstaking physical examinations without adequate facilities for doing so. Many physicians have only one examining table, and that is oftentimes in the consulting room. They should have two or, better still, three examining rooms. That, of course, requires help, but without either or both it will be too troublesome to make examinations and there won't be time for it. The helper does not need to be a trained nurse. An intelligent girl can be trained to get patients ready and to help in the examination and to carry out some minor laboratory procedures besides looking after other things. One sees occasionally rather imposing, elaborate reception rooms with an able attendant in charge, giving the impression of "big business", but beyond these four walls the real work shop is woefully lacking in working facilities. With the same expenditure in such a case, a real and practical setup could be operative. A point is made of this because one hears it said that a helper and two or three examining rooms is prohibitive because of the cost of operation. Drive less expensive cars perhaps and cut corners on things less essential than the real heart of the work. In any case, it is best to keep it simple, but it must be adequate, or, to repeat, without good working facilities—it just won't be done.

Summary

While the diagnosis of cancer in its early stages may be difficult or impossible, it is not too difficult in the large majority of cases, provided we are thoroughly familiar with the early symptoms and signs. If we are, we suspect cancer, the most important consideration in cancer diagnosis.

Be painstaking and thorough in obtaining histories and in making physical examinations. Adequate facilities and equipment are absolutely necessary for the examination of our patients, or it won't be done.

Cancer diagnosis calls for help—no one can do it alone—moreover no one can afford to assume the entire responsibility. Errors in diagnosis are too costly—first of all, of course, to the victim because he pays with his life, and then to us physicians who are proud. We feel injured when disgraced or criticized, which we are bound to be if we fail in meeting our responsibility, because cancer does not cure itself. Failures of diagnosis catch up with us.

Relatively few are trained or equipped to treat cancer but we, all of us, have to diagnose cancer. Diagnose cancer while it is still a problem. Do not wait until it is too easy.

MSMS Foundation for Postgraduate Medical Education

Pursuant to the report of the MSMS Committee on Postgraduate Medical Education, and following instructions from the House of Delegates, the Executive Committee of The Council after exhaustive study empowered the President and Secretary of the State Society to sign the Trust Agreement creating the "Michigan State Medical Society Foundation for Postgraduate Medical Education" on June 18, 1942.

The scene of this culmination of fifteen years' consideration of the need for this Foundation was Detroit, where the Michigan State Medical Society was founded seventy-seven years ago.

The Trust Fund will be devoted entirely to the development of a greater Michigan Postgraduate Medical program. This action is so obviously in the public interest, it is believed it will be a stimulus to doctors of medicine and interested laymen in developing the Foundation which in time will redound to the benefit of the people of Michigan through an ever-increasing improvement in the quality of medical service in this State.

Henry R Carstens

President, Michigan State Medical Society

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EDITORIAL

LISTENING AND LEARNING

■ Many physicians attending medical meetings listen to carefully prepared material, well delivered by able men on vital subjects, but fail to derive any great benefit. Too often it is because the practitioner goes to that meeting in a negative frame of mind. He listens more to find a statement he does not agree with, rather than to assimilate the useful information which is universally present, even though occasionally flooded by immaterial and unimportant statements.

The most useful education is attained by an open mind continuously searching for items of information and different points of view.

Most physicians are faced with the practical problems involved in their every day tasks and are prone to expect specific answers to specific problems which are facing them from day to day. If he attends a lecture with the expectation of having someone give him a clean cut solution to his particular problem he is doomed to disappointment. He should put himself in the speaker's position. How can the speaker possibly know the particular stumbling block which is confronting the individual practitioner? It would be necessary to have a personal consultation, furnishing to the instructor the history of the solitary case, and other necessary background, before the advice would be of any value. One should go to medical meetings seeking general information and particularly in quest of inspiration. When the speaker tells of his own difficulties and how he solved them; or he discusses other people's problems and how they were unraveled, the practitioner should be inspired to go back and to meet once again his own points to be solved with a better will and determination.

The committee in charge of the scientific program at any medical meeting is confronted by the question of whom they should ask to address the audience. If there are forty speakers on the program (as is usual in the MSMS Annual Convention) it is probable that not all will be exceptional speakers, or will have a paper interesting and worth while to each and every listener. If the physician is unfortunate enough to hear a poor speaker, or one who has a less expertly prepared subject, or a paper of no particular interest to him, he should be open minded enough to charge it up to profit and loss and not let it make him decide that listening to speeches is not worth while. If he were to give time (which might have been used for something else) to hear ten papers and only one of the ten papers given had a real message for him, all the time devoted to the other nine meetings could still be considered a good investment.

Every physician should attend hospital staff, county society, state society, and other conferences, with an open mind, expecting always to find items of interest and information which would broaden his understanding and scope of knowledge. He should not come to them with a negative attitude.

Too often the physician says: "I am not interested in this subject." "It does not pertain to my type of practice." "I would never treat a case of pneumonia, I am an otolaryngologist." "Reading an electrocardiogram is not of value to me in my specialty of urology." Perhaps he is right but the broadening effect of general medical education cannot help but improve the specialist in every field. Education can always be expanded and the mental processes stimulated. It is frequently difficult to associate the direct contribution to his ability to do his particular job but nevertheless occasionally he will find some apparently unrelated bit of knowledge or morsel of information of service in hitherto unsuspected ways, in his ordinary practice.

Mental growth is stimulated by continued effort.

MSMS

If you attend the Dermatology Section meeting at the Annual Convention of the MSMS in Grand Rapids in September you will have an opportunity to hear Eugene F. Traub, M.D., of New York, discuss skin cancers, their causes and treatment.

OUTLINE OF GENERAL ASSEMBLY PROGRAM
77th Annual Meeting, Michigan State Medical Society
Grand Rapids — September, 1942

	Wednesday September 23, 1942	Thursday September 24, 1942	Friday September 25, 1942
A.M. 9:30 to 10:00	General Practice HARVEY B. MATTHEWS, M.D. Brooklyn, N. Y.	Obstetrics (Maternal Health) PHILIP F. WILLIAMS, M.D. Philadelphia	ON THE EIGHT SECTION PROGRAMS Medicine J. B. YOUMANS, M.D., Nashville Surgery W. D. GATCH, M.D., Indianapolis Obstetrics and Gynecology W. C. DANFORTH, M.D., Evanston Ophthalmology P. A. CHANDLER, M.D., Boston Pediatrics BRONSON CROTHERS, M.D., Boston Dermatology E. S. TRAUB, M.D., New York Radiology, Pathology, Anesthesia EDW. SKINNER, M.D., Kansas City General Practice H. C. GUESS, M.D., Buffalo
10:00 to 10:30	Surgery FRED W. RANKIN, M.D. Lexington, Ky.	Medicine ROY W. SCOTT, M.D. Cleveland	
10:30 to 11:00	VIEW EXHIBITS	VIEW EXHIBITS	
11:00 to 11:30	Syphilology J. EARL MOORE, M.D. Baltimore	Medicine IRVINE H. PAGE, M.D. Indianapolis	
11:30 to 12:00	Gynecology GEO. H. GARDNER, M.D. Chicago	Pediatrics A. H. PARMELEE, M.D. Chicago	
P.M. 12:00 to 12:30	Obstetrics PHILIP F. WILLIAMS, M.D. Philadelphia	General Practice ELMER L. SEVRINGHAUS, M.D. Madison, Wis.	
12:30 to 1:30	LUNCHEON VIEW EXHIBITS	LUNCHEON VIEW EXHIBITS	LUNCHEON VIEW EXHIBITS
1:30 to 2:00	Symposium on "Chemotherapy" Medicine H. F. FLIPPIN, M.D. Philadelphia	Ophthalmology MEYER WIENER, M.D. St. Louis	Otolaryngology GEO. E. SHAMBAUGH, JR., M.D. Chicago
2:00 to 2:30	Surgery RUSSELL D. HERROLD, M.D. Chicago	Pathology E. T. BELL, M.D. Minneapolis	Dermatology L. A. BRUNSTING, M.D. Rochester, Minn.
2:30 to 3:00	VIEW EXHIBITS	VIEW EXHIBITS	VIEW EXHIBITS
3:00 to 3:30	Pediatrics JOHN A. V. DAVIES, M.D. Boston	Anesthesia PAUL M. WOOD, M.D. New York, N. Y.	Pediatrics (Child Welfare) CLIFFORD G. GRULEE, M.D. Evanston, Ill.
3:30 to 4:30	DISCUSSION CONFERENCES with guest essayists	DISCUSSION CONFERENCES with guest essayists	3:30 to 4:00 — Medicine J. BURNS AMBERSON, M.D. New York 4:00 to 4:30 — Surgery CHAS. B. PUESTOW, M.D. Chicago
8:30 to 10:00	PRESIDENT'S NIGHT Biddle Oration Floor Show Dancing	SMOKER	END OF CONVENTION

Committee Reports

ANNUAL REPORT OF LEGISLATIVE COMMITTEE, 1941-42

During the non-legislative year, your Legislative Committee held no meetings.

Two extra sessions of the Michigan Legislature were held in January and February of 1942. No proposal of particular interest to the medical profession was introduced in the first extra session, although a total of seventeen proposals was considered. In the second extra session, two bills were of special medical interest: (a) an amendment to the venereal disease control act, which granted wide powers in enforcement of sanitary laws, making it possible to effectively isolate, hospitalize and treat cases of known or suspected genito-infectious disease. This amendment to Act 328 of the Public Acts of 1931 was approved by the MSMS Syphilis Control Committee; (b) a bill to authorize the Michigan Department of Health to purchase and distribute biological products for use in the control of communicable diseases (Amendment to Act 105 of the Public Acts of 1927). Both of these proposals were passed by the Legislature, signed by the Governor and are now law.

The Committee developed plans for contact work before the 1942 elections. It also aided the American Medical Association in its efforts to clarify and eliminate ambiguous and objectionable provisions of proposed federal laws, and routinely followed the suggestions made in the AMA Legislative Bulletins. The Legislative Committee received prompt and courteous consideration at the hands of United States Senators and Congressmen from Michigan.

Your Legislative Committee again respectfully recommends that the Michigan State Board of Registration in Medicine be urged to seek necessary changes in the archaic Medical Practice Act from the 1943 Legislature, as one of the Board's major activities.

Finally your Legislative Committee stresses the continued need for frequent contact, before the 1942 elections, with each candidate for the Michigan Legislature and other State and county offices by members of the MSMS; particularly by the family physician of the office seeker. History proves that all types of ill-begotten legislation are attempted during wartime. Therefore, a greater responsibility than ever rests upon the officers and *individual members* of our county medical societies to continue their valuable contacts with candidates for and holders of public office. The most valuable contact is made by physicians back home, those who know the public official personally.

Respectfully submitted,

HAROLD A. MILLER, M.D., *Chairman*
A. S. BRUNK, M.D.
H. H. CUMMINGS, M.D.
LAWRENCE DROLETT, M.D.
T. K. GRUBER, M.D.
WM. S. JONES, M.D.
S. L. LOUPEE, M.D.
G. L. MCCLELLAN, M.D.
HAROLD MORRIS, M.D.
E. W. SCHNOOR, M.D.
O. D. STRYKER, M.D.
R. V. WALKER, M.D.

ANNUAL REPORT OF COMMITTEE ON DISTRIBUTION OF MEDICAL CARE, 1941-42

In the fall of 1941 The Council referred to the Committee for reconsideration and re-wording a resolution which had been offered at the 1941 AMA meeting. No other important matters came to the attention of the Committee and so no meetings were held until May 6, 1942. At this time the resolution in question was discussed in detail. On being advised that there might be a general practitioners' section of the American Medical Association which indicated a delegate from the general practitioners to the AMA House of Delegates, it was decided by the Committee to recommend to The MSMS Executive Committee that the resolution be referred to the Section on General Practitioners of the AMA for re-wording and re-introduction on the floor of the AMA House of Delegates.

Some minor correspondence to the Committee was handled efficiently by the Executive Secretary of the State Society.

In view of a proposed conference of governors of all states at which efforts would be inaugurated aiming toward unification of various state laws in order to facilitate federal regulations, and in view of the fact that it had been announced that the licensing of professional men would be included in the discussion, the Committee moved to have the Executive Secretary invite to the attention of the proper authorities the fact that any lowering of requirements in the field of medical licensure would be vigorously opposed in Michigan.

War conditions and the great changes being made in distribution of medical care have precluded any further consideration on the distribution of medical care by the Committee on that subject.

Respectfully submitted,

S. W. HARTWELL, M.D., *Chairman*
A. F. BLIESMER, M.D.
T. S. CONOVER, M.D.
H. F. DIBBLE, M.D.
G. B. SALTONSTALL, M.D.
H. B. ZEMMER, M.D.
WM. P. WOODWORTH, M.D.

ANNUAL REPORT OF MSMS REPRESENTATIVES TO THE MICHIGAN JOINT COMMITTEE ON HEALTH EDUCATION, 1941-42

The Michigan Joint Committee on Health Education has continued its traditional activities on a somewhat lessened scale.

Some fifty speakers were sent out from the central office to lay audiences during the past year. This is a decrease in the number of assignments, and may be accounted for by the fact that this year organizations were asked to pay something towards expenses. Lessened income requires this, and indeed there seems to be no reason why there should be a distinction between lectures on medical subjects and other subjects which are handled by the Extension Division of the University.

We believe that we can stimulate the demand for health lectures. This year we were fearful that we could not carry through because of lessened finances, if we received the normal number of requests. This coming year we can safely promote this activity.

The *Detroit News Column* has continued, although the financial contribution of the Joint Committee to it has been limited. The Joint Committee funds have been used to send copies of this column to all health units in the state, and to about fifty of the smaller daily and weekly papers. This includes stenographic expense, mimeographing, material, etc.

There apparently is some difference of opinion as to the value of the radio project. Your chairman is confident that the radio outlets have a very sizable audience which is interested in health talks, and that this audience should be conserved and catered to to the best of our ability. The Joint Committee is prepared to furnish the mechanics for the Radio Com-

mittee, getting out the mimeographed copies, arranging for outlets, etc. Either the Joint Committee or the Radio Committee should again make a survey of the reception which has been given to the radio talks in this past year. Certainly there is no lessening of the need for the dissemination of factual health information to the laity.

We again invite your attention to the fact that the Committee has a sizable library of sound and silent films of excellent quality and character. It is not being used as much as it might be.

Respectfully submitted,

BURTON R. CORBUS, M.D., *Chairman*
L. W. HULL, M.D.
H. A. LUCE, M.D.
F. J. O'DONNELL, M.D.
W. R. VAUGHAN, M.D.

ANNUAL REPORT OF THE MEDICAL LEGAL COMMITTEE, 1941-42

Inasmuch as the activities of the Medical Legal Committee have been restricted to an advisory capacity only, since action was taken by the State Society to drop medical legal defense for members, no meetings have been held during the past year.

Several cases pending at the time medical defense was offered have been settled during the past year either by dismissal or suit. Attorneys' bills for services have been recommended for payment. There are several suits still pending. These suits were begun alleging that the actions justifying malpractice litigation occurred during the time members of the State Society were offered legal defense. Obviously no defense is being given when the alleged action occurred after Medical Defense was dropped.

Respectfully submitted,

S. W. DONALDSON, M.D., *Chairman*
DON V. HARGRAVE, M.D.
R. R. HOWLETT, M.D.
WM. J. STAPLETON, JR., M.D.

ANNUAL REPORT OF COMMITTEE ON PREVENTIVE MEDICINE, 1941-42

The Committee held three general meetings at which were cleared the activities of the numerous Advisory Committees. As was to be expected, the demands made for study and solution of numerous problems were far in excess of those of any previous year. Accordingly, a wide variety of subject matter was considered:

The Pneumonia Control Program of the State Department of Health was approved after careful study.

A Venereal Disease Prevention Program was formulated, and regulations for the organization and conduct of venereal disease welfare clinics were framed.

A survey of some 6,000 factories was made to ascertain the number of physicians essential in industrial practice.

The State-wide immunization program was broadened and accelerated, and problems of sanitation and public health regulation in the mushroom war production areas were vigorously attacked.

An Institute on Preventive Medicine is being planned this year on September 22. It will be presented under the auspices of the Advisory Committee on Heart & Degenerative Diseases with Lieut. Colonel Richard M. McKean as Chairman, and will cover the subject "Practice of Medicine in Total War." It is planned that henceforth, these Institutes will be presented in rotation annually by each of the Advisory Committees, emphasis being placed on the preventive aspects of the subject under discussion, with the attempt made to link the program with the courses in postgraduate medicine presented throughout the year.

Detailed reports of the activities of the various Advisory Committees are worthy of careful study. They indicate in no uncertain manner the sincere attempt made to render service to the public and the profession, while attesting but meagerly to the long hours of arduous effort contributed unselfishly by the members of these Committees.

Respectfully submitted,

WM. S. REVENO, M.D., *Chairman*
J. D. BRUCE, M.D.
B. R. CORBUS, M.D.
WM. A. HYLAND, M.D.
M. R. KINDE, M.D.
H. A. LUCE, M.D.
R. J. MASON, M.D.
R. M. MCKEAN, M.D.
J. DUANE MILLER, M.D.
H. ALLEN MOYER, M.D.
FRANK VANSCHOICK, M.D.
H. W. WILEY, M.D.
A. R. WOODBURNE, M.D.

ANNUAL REPORT OF CANCER COMMITTEE, 1941-42

1. Greater interest in Cancer education is constantly being shown by high school authorities throughout the State. Our committee believes that this interest should be stimulated and increased by both the schools and the State Department of Public Instruction. Therefore, a resolution was recently approved toward bringing Cancer Control facts to all high school and college students, as rapidly as personnel can be found for this work. This resolution was forwarded to the Director of the Michigan Department of Health, as well as to the Director of the Michigan Department of Education.

2. Several state medical societies have prepared and distributed to their members manuals for the diagnosis and treatment of Cancer, such manuals containing concise information on the major forms of cancer, more recent ideas of treatment, technique of biopsy, and the handling of the terminal or progressive cancer patient. An endeavor is being made in the case of the latter to relieve the discomfort of the patient without the promiscuous and excessive use of opiates and narcotic drugs that lead to the patient becoming an addict towards the termination of his life.

All the above section in the manual is being edited by the Committee, or one selected by the Committee, who is recognized as competent in his special field.

Manuals prepared by several states have been issued to members of the Committee for study and the incorporation of newer ideas in the subject assigned to the member. This manual should be brief as possible, while containing the necessary knowledge.

3. The Committee believes that speakers on the subject of Cancer Control should be selected from members of the Speakers' Bureau, appointed by the local medical society, which organization is in a better position to judge what type of speaker should be appointed for the various fraternal, social and luncheon clubs, or other organizations which desire a medical discussion in connection with the showing of the picture prepared by the Women's Field Army. With this in mind, the Cancer Committee will prepare an outline of material on Cancer in bulletin form for the convenience of the county medical society Speaker's Bureau. This will be a mimeographed bulletin of about 25 to 30 pages which will give the speaker sufficient data for an outline of his talk, and will be prepared under the direction of F. L. Rector, M.D., Field Representative in Cancer of the Michigan State Medical Society and the Michigan Department of Health.

4. The Cancer Committee, one year ago, was faced with the loss of its field representative by the call to Army Service of F. H. Power, M.D. We were

very fortunate in obtaining the services of F. L. Rector, M.D., who had been connected with the American Society for the Control of Cancer for a number of years. Dr. Rector's work has been somewhat different from our former Representative's, as he has assumed the position in regard to the profession as a discussant in the knowledge of cancer prevention as pertaining to laymen as well as physicians, rather than a diagnostic consultant in Cancer with the medical profession. In addition, H. Allen Moyer, M.D., Commissioner of the Michigan Department of Health, has been extremely coöperative with Dr. Rector, and at all times has been of the most help in furthering the combined work of the Michigan Department of Health and the Michigan State Medical Society in regard to cancer.

The pleasant relations of the three organizations, namely, the Michigan Department of Health, the Women's Field Army for Control of Cancer, and the Michigan State Medical Society have been most enjoyable, and the Chairman wishes to express his appreciation to Mrs. Wierengo, head of the Women's Field Army, Health Commissioner Moyer, Field Representative Rector, and members of the Cancer Control Committee of the Michigan State Medical Society for their advice and willing coöperation at all times, toward the success of our project.

Respectfully submitted,

Wm. A. Hyland, M.D., *Chairman*
John H. Cobane, M.D.
F. A. Coller, M.D.
W. G. Gamble, M.D.
C. K. Hasley, M.D.
A. B. McGraw, M.D.
Wm. R. Torgerson, M.D.
C. V. Weller, M.D.

ANNUAL REPORT OF MATERNAL HEALTH COMMITTEE, 1941-42

Your Committee held two meetings during the past year and considered the following matters:

1. Recommended publishing in the MSMS Journal the report of Practices and Facilities in Maternity Homes and Hospitals in Michigan.
2. Recommended that the authority for licensing of maternity homes and hospitals be the function of the State Department of Health, and that legislation to effect this matter be initiated in the 1943 session of the Legislature.
3. Recommended that the Maternal Health Committee be permitted by the MSMS Council to contact the Mary Elizabeth (Knudsen) Fund for financial assistance in the Committee's survey of maternal deaths in the state of Michigan.

Respectfully submitted,

H. W. Wiley, M.D., *Chairman*
D. C. Bloemendaal, M.D.
Max Burnell, M.D.
N. F. Miller, M.D.
H. A. Pearse, M.D.
W. F. Seeley, M.D.
Alex. M. Campbell, M.D. (Advisor).

ANNUAL REPORT OF SYPHILIS CONTROL COMMITTEE, 1941-42

Your Syphilis Control Committee has been extremely active this year (having held *five* meetings) and has considered many matters. The most important follow:

I. After investigation it was found that evidence of genito-infectious disease discovered during industrial examinations was not being adequately followed. This Committee therefore had two meetings with the Industrial Health Committee. At one of these meetings we obtained the technical assistance of David Elliott, Passed Assistant Surgeon, USPHS, and Walter Clark, M.D., and Thomas Storey, M.D., of the American Social Hygiene Association.

Following these discussions your Committee submitted a series of recommendations which were approved by The Executive Committee of The Council and were forwarded to the Commissioner of Health of the State of Michigan. These recommendations have been sent out from the office of the Commissioner of Health to those concerned in an effort to obtain better control of these cases.

II. A review has been made of Act 292 of 1937 (The Michigan Premarital Examination Law). In this study we have compared our law with that of several other states. U. J. Wile, M.D., lent us his invaluable help in this study.

During this study, F. J. Weber, Passed Assistant Surgeon, USPHS, gave us an excellent analytical study of the working of our law during the past four years.

From these studies two important changes have been recommended:

(a) A proposed amendment to the Premarital Examination Law has been submitted to The Executive Committee of The Council which has approved this and will recommend its passage at the next session of the Legislature. This amendment would provide for the marriage of proven pregnant women despite genito-infectious disease under certain circumstances.

(b) The Committee has received additional funds from the State Department of Health to augment those available for the control of genito-infectious diseases. These funds are being used to defray expenses of an Advisory Consultation Board to pass on cases requesting special certification for marriage licensure under our Premarital Examination Law. The State Commissioner of Health has appointed a number of these consultants and the work is now operating efficiently to the benefit of the applicants.

III. The Commissioner of Health early in the year asked your Committee to review and re-write the present report forms used in the reporting of genito-infectious disease. We compared our forms with those of other states and have re-written our form to comply with the best practice in other states and with the best principles of infectious disease control. These new forms are now in use throughout the state.

IV. Early in February the Commissioner of Health requested your Committee to re-write certain sections of Act 328 of Public Acts in 1931. Under this local health authorities could not effectively isolate, hospitalize or treat cases of known or suspected genito-infectious disease. This problem has become acute in some cantonment and defense areas. At two special meetings with representatives of the office of the Commissioner of Health this law was re-written, approved by the Executive Committee of The Council, submitted to and passed by the Second Extra Session of the Legislature in February, 1942.

V. The problem of selectees rejected or deferred because of genito-infectious disease was considered by your Committee. After study of the situation, corrective measures were recommended to the Executive Committee of The Council. These were approved and sent to Lt. Colonel H. A. Furlong, M.C., Medical Director of Selective Service in Michigan. Lt. Colonel Furlong approved our suggestions and new regulations were sent to Selective Service Boards covering the handling of the men so that we now hope that they will be adequately followed.

VI. With the large concentration of men in defense areas and cantonments we felt that the problem of prophylaxis against genito-infectious disease was one of major importance to the Nation. Your Committee has devoted a large part of three meetings to this problem and finally came to the conclusion that a statewide prophylaxis drive should be instituted. While the Committee feels that this problem would best be administered by Doctors of Medicine or authorized

prophylactic stations, this ideal has failed in performance and therefore we feel that drug stores represent our first line of approach.

The Executive Committee of The Council has approved our policy and we have obtained excellent support and advice from the Michigan State Pharmaceutical Association. Mr. J. H. Webster and Mr. Clarence Campbell representing the Pharmaceutical Association have met with us and have worked untiringly in solving some of our technical problems.

We have worked out a satisfactory inexpensive prophylactic kit to be dispensed by the neighboring drug store. To carry on the program we are now in the process of preparing a simple direction sheet to be supplied with the kit; also a clear, brief pamphlet to be furnished the druggist for distribution to those requesting information on genito-infectious disease, particularly with regard to safe and effective prophylactic procedures.

We feel that if we are able to establish this program on a state-wide basis, utilizing every drug store, we will be contributing a great deal to the defense effort as well as protecting many of our own nondefense citizens.

Respectfully submitted,

A. R. Woodburne, M.D., *Chairman*
Claud W. Behn, M.D.
R. S. Breakey, M.D.
Eugene Hand, M.D.
L. W. Shaffer, M.D.

ANNUAL REPORT OF TUBERCULOSIS CONTROL COMMITTEE, 1941-42

The Tuberculosis Control Committee held one meeting during the year. At this meeting several problems relating to the field of tuberculosis were discussed.

In coöperation with the state health department an outline was developed for the general practitioner regarding the procedure to be followed by selectees who have been turned down by the Army because of tuberculosis or other chest conditions.

The Committee recommended that the Michigan State Medical Society support the State Health Department's case finding program in which miniature x-ray films are used in sparsely settled counties, colleges, and industrial plants.

A recommendation was made to the State Sanatorium Commission for the adjustment of tuberculosis rates in its two sanatoria.

The Committee developed a minimum outline of the procedure to be followed in tuberculosis case finding by the general practitioner. The plan is to have this outline published in the Journal.

The Committee developed a list of films and educational material available on the subject of tuberculosis, these to be used by medical societies and others interested in the education of the general public.

Respectfully submitted,

M. R. Kinde, M.D., *Chairman*
John Barnwell, M.D.
L. E. Holly, M.D.
W. L. Howard, M.D.
Willard B. Howes, M.D.
Bruce H. Douglas, M.D. (Advisor)

ANNUAL REPORT OF INDUSTRIAL HEALTH COMMITTEE, 1941-42

The first meeting of the Industrial Health Committee was held on September 17, 1941, in Grand Rapids, at which time members of the preceding committee were present as well as Chairman C. G. Burke, M.D., of the Oakland County Committee; Leon Sevey, M.D., of the Kent County Committee, and C. M. Peterson, M.D., and O. J. Johnson, M.D., of the American Medical Association. At this time, plans for promoting a program of examinations of employes for placement in industry, particularly plans for studies that were then being conducted by the Kent and Oakland County Committees, were discussed. It was decided to promote a physical examination program in small industries and to conduct studies to ascertain some information concerning the health of workmen in these smaller plants. The Committee also recommended to the Executive Committee of The Council that Dr. Johnson of the A.M.A. Council on Industrial Health be invited to conduct a survey of industrial practice in Michigan.

Following this invitation, Dr. Johnson of the A.M.A. conducted the survey, the report of which is now on file in the Lansing office of the Michigan State Medical Society. This report contains much interesting and valuable data which has been examined by your Committee and we recommend its examination by all those interested in industrial practice and regret that space does not permits its publication along with our report.

At a subsequent meeting on November 12, 1941, these plans concerning placement examinations were discussed further and it was decided to promote these studies. Your Chairman spoke before some of the smaller county societies in an attempt to interest them in placement examinations in the smaller plants throughout the State. Since the first of the year, it has been impossible to increase the scope of the physical examination program in small industries, on account of an increasing shortage of medical men in our communities.

Contact has been kept with the Michigan Industrial Hygiene Society throughout the year. Your Chairman attended three of these meetings and spoke at two of them.

The coding of a list of physicians interested in industrial work in the state of Michigan was requested by the A.M.A. This list was coded as well as possible for them.

Your Chairman and two members of the Committee attended the Congress on Industrial Health in Chicago, January 12 and 13, 1942, at which time a brief report was made of the Industrial Health program in Michigan.

The State Committee has coöperated with the Michigan Procurement & Assignment Committee office in obtaining for its use information concerning men in industrial practice. In this respect, we made a survey of industries in the state of Michigan comprising nearly 6,000 plants; from these concerns we obtained approximately 2,500 replies recording the name, age, position held and length of service of men engaged in industrial practice who are serving the industries of Michigan. This information is now available for the use of future committees on Industrial Health, also for the Bureau of Industrial Hygiene and the A.M.A., as well as for the Procurement and Assignment Service.

Respectfully submitted,

J. Duane Miller, M.D., *Chairman*
Henry Cook, M.D.
H. H. Gay, M.D.
K. E. Markuson, M.D.
Frank T. McCormick, M.D.
C. D. Selby, M.D.
Geo. VanRhee, M.D.

ANNUAL REPORT OF MENTAL HYGIENE COMMITTEE, 1941-42

This Committee has held one regular meeting and several informal ones throughout the year. The Committee has encouraged careful psychiatric examinations for the selectees under military service. Many local boards were unable to secure qualified psychiatric help. This is a reflection on the lack of qualifications in this field of the medical sciences.

Constant effort is being made by members of our

committee to develop a knowledge and awareness of mental and emotional disorders to the general profession. An effort has been made through the MSMS Committee on Postgraduate Medical Education and has brought some results but not to the amount that its importance justifies.

The Chairman of the Committee has attended all the meetings of the M.S.M.S. Preventive Medicine Committee and at these meetings has contributed wherever possible to the understanding of the mental aspects in a preventive medicine program.

Respectfully submitted,

HENRY A. LUCE, M.D., *Chairman*
R. G. BRAIN, M.D.
R. W. WAGGONER, M.D.
ARCH WALLS, M.D.
O. R. YODER, M.D.

ANNUAL REPORT OF CHILD WELFARE COMMITTEE, 1941-42

The Child Welfare Committee has had five regular meetings of the full Committee, three meetings of one sub-committee, and numerous conferences by individual members of the Committee. As was anticipated from the previous annual report, the problem of child health in war demanded most of the Committee's attention. However, a few items of unfinished business got first call, namely:

I. 1. The preparation of pamphlets or brochures on contagious diseases is continuing. These are to be distributed through regular health department outlets as the need arises in any one community.

2. Revision of recommendations on immunization procedures was done. These recommendations are sent to the parents of each newborn child by the Department of Health.

3. Compulsory immunization for diphtheria and smallpox before admission to school was thoroughly discussed. It was felt that the Jackson plan should be watched a little longer and more educational approaches should be made before any action is taken.

4. Recommended to the State Health Department and the State Legislature in session that the State Health Laboratories produce combined Tetanus and Diphtheria toxoid. Also that they should not limit their production to combined tetanus, diphtheria toxoid but should continue to produce diphtheria toxoid. Also the committee recommended the use of combined tetanus diphtheria toxoid to the physicians of the State.

5. The State Health Department's incubator program was discussed and commended. The Committee felt that the value of the incubator was to a large degree dependent upon the knowledge of the care of the premature. It recommended that the State Health Department employ a nurse who was well qualified to teach such procedures to the personnel of small hospitals. The State Health Department has employed such a person and her qualifications have been passed upon by the Committee.

6. The Committee acted as consultant to R. M. Kempton, M.D., who with a joint committee prepared a pamphlet entitled "School Health Policies."

7. Restated the policy of the M.S.M.S., the Department of Public Instruction, and the Parent-Teachers Association relative to preschool examination, to wit:—that whenever possible school and preschool examinations should be done in private physicians' offices.

II. The second phase of the Committee's activity was brought to a focal point by the following communication from the Chief of the Children's Bureau in Washington, under date of January 22, 1942:

> "The wartime industrial and military program in the United States has brought about marked dislocations and new concentrations of population. Children must be protected against the danger of epidemics that are most likely to occur with these shifts in population. Since the problems which confront the country in the conduct of the war may involve the evacuation of children from cities, every possible preventive public health measure should now be employed, not only to protect those who may move but also to safeguard the communities into which many children may go.
>
> "We recommend that a major effort be made at this time to secure the immediate immunization of 100 per cent of all children over nine months of age against diphtheria and smallpox. In addition, every state should consider the advisability of the immunization of children against typhoid, tetanus, and whooping cough.
>
> "We ask that you give your immediate consideration to the use of existing unexpended balance of maternal and child-health funds now on hand in the State for such an immunization program. Budget amendments for this purpose, submitted to our regional medical consultants, will be given immediate consideration.
>
> "It is hoped that your department, in coöperation with volunteers and other agencies, will have organized and completed this nationwide immunization campaign by May first, and that we should make this achievement our celebration of May Day—Child Health Day, 1942.
>
> "Please let us know whether you will undertake this campaign in your State."

On February 8, the President's May Day proclamation was along the same lines.

It was estimated that 600,000 Michigan children would receive two injections of toxoid and one against smallpox, each. The State Laboratories were in no position to meet this load at once and therefore it was decided this should be a year-round campaign with special emphasis on May first as Child Health Day.

Following a detailed conference with officials of the State Health Department the following resolution was unanimously adopted:

WHEREAS, The Child Welfare Committee of the Michigan State Medical Society endorses a general program of childhood immunizations; and
WHEREAS, Such a program is always essential to the best welfare of children even in normal times; and
WHEREAS, Present defense activities occasion great shifts and congested concentrations in population, with resulting dislocation of normal activities and health safeguards; and
WHEREAS, In a number of Michigan communities, such health safeguards and necessary control measures have been disrupted, which may result in deadly epidemics unless preventive measures are effectively inaugurated and pursued at this time; therefore be it
RESOLVED, That the Child Welfare Committee of the Michigan State Medical Society recommends that a major effort be made in the present serious emergency to secure the immediate immunization of 100 per cent of all children over 9 months of age against diphtheria and smallpox, for the health and safety of our State.

Inasmuch as this was a matter of national defense, Lt. Col. H. A. Furlong, Medical Director, Office of Civilian Defense, was consulted and asked to coöperate. He offered many valuable suggestions and agreed to recommend the plan to local defense councils to be worked out according to the best local pattern.

As a matter of policy the Committee felt that

1. Each county medical society should determine its own method of procedure.
2. Private initiative should be pursued vigorously in getting the maximum number immunized in the private physician's office.

3. To this end adequate publicity and organization by the health departments was essential.
4. Complete records must be kept.
5. Compensation from the unexpended balance ($15,000) from the Maternal and Child Health funds should be "token" payments to the various county medical societies.
6. The Committee insisted that the actual work be done by physicians in their own offices so far as possible.

III. The third phase of the Committee's activity was a result of the following resolution which was passed December 11, 1941, and forwarded up through the regular channels of the M.S.M.S.:

"WHEREAS, the increased industrial activity in the production of war materials, together with the reduction or total stoppage of previously active peace industries, has brought about great and sudden shifts of population in the State of Michigan; and

"WHEREAS, such shifts in population have created congested areas with inadequate housing and lack of sanitary facilities; and

"WHEREAS, past experience has shown such conditions invariably breed epidemics of communicable diseases; and

"WHEREAS, the increased burden of supervision and control has taxed the local public health services to the utmost; and

"WHEREAS, there is great need for a uniform Code of Procedure in the prevention of epidemics and in the control of communicable disease in this State; therefore be it

"RESOLVED, That the Child Welfare Committee of the Michigan State Medical Society recommends that The Council of the M.S.M.S. request the State Department of Health to appoint a committee with the following purposes:

1. To carry on a study of the needs arising from the above-mentioned situation;
2. To draft a Uniform Code of Procedure for the prevention of epidemics and for the control of communicable disease;
3. To make every effort to communicate such Code to all interested parties, including physicians, local health officers, sanitary engineers, nurses, et cetera; and

"WHEREAS, this is a problem which calls for complete coöperation and coördination between a number of interested groups; therefore be it

"RESOLVED, That this Committee-to-be-appointed include representatives of the Michigan State Medical Society, the State Department of Health, the Michigan Branch of the A.A.P., the State Nursing Association, and the Department of Public Instruction, with the privilege of calling in for consultation or advice any or all persons or groups they may deem advisable or necessary."

As a result, H. A. Moyer, M.D., State Health Commissioner, appointed a committee of five: E. V. Thiehoff, M.D., Miss Lena Schermann, R.N., Mr. G. Robert Koopman, Edgar E. Martmer, M.D., and Frank VanSchoick, M.D.

This committee, at its first meeting, sat with the State Board of Health and helped make the final revision of the rules and regulations governing communicable disease control. At its next meeting at Ypsilanti, near the Ford Bomber Plant, it set up the machinery for health services in rural Wayne County. At its third meeting in Mt. Pleasant it attempted to do the same for Macomb County. Because of certain local conditions this activity is still pending.

The above short paragraph in no way represents the amount of work, effort and grief the members of this subcommittee were subjected to. Because the work is not completed and further details are uncertain, the Committee is unable to make additional comment at this time.

While the Child Welfare Committee is distinctly public health minded, it feels that it is the necessary duty of every private physician to actively coöperate and lead in preventive medicine activities in his community if he is to maintain the American system of medical practice in the modern plan of living.

Respectfully submitted,

FRANK VANSCHOICK, M.D., *Chairman*
W. C. C. COLE, M.D.
CAMPBELL HARVEY, M.D.
LEON DEVEL, M.D.
R. M. KEMPTON, M.D.
EDGAR MARTMER, M.D.
CHARLES F. MCKHANN, M.D.

ANNUAL REPORT OF IODIZED SALT COMMITTEE, 1941-42

This Committee held a joint meeting with the National Study Committee on Endemic Goiter of the American Public Health Association on January 17, 1942, in Detroit, Michigan. The transcription of this meeting is now in process of correction. It, together with the former one of the National Committee meeting of last year, will be placed in the files of this Society and should prove to be valuable papers upon the subject of the use of iodine as a prophylaxis of endemic goiter.

The present status of iodized salt is clearly set forth in the following resolution adopted for the purpose of giving to the Salt Producers Association an official statement from the two Study Committees.

1. From the knowledge of the excellent results obtained in the 1935 survey in the State of Michigan came the desire to have other states share the benefit of Michigan's experience through the services of a national organization, so consequently a Study Committee on Endemic Goiter was organized in and under the direction of the American Public Health Association. This Committee, together with the Michigan State Medical Society's Committee on Iodized Salt, offer the following recommendation:

"RESOLVED, That all salt for table use of human beings and salt used for feeding to domestic animals in the United States should contain one-hundredth of one per cent of potassium iodide or its equivalent, viz. forty-five milligrams of potassium iodide to each pound of salt, provided that an effective stabilizer be used."

Adopted by the Michigan Committee in May, 1940, and by the A.P.H.A. Study Committee in June, 1941.

2. From the laboratory studies at the University of Wisconsin has come the discovery and definition of a stabilizer which prevents the loss of iodine from the mixture of potassium iodide with salt. A stabilizer is an invaluable agent and its use permits the amount of potassium iodide to be reduced from two-hundredths as originally recommended to one-hundredth of one per cent.

3. From contact with the Federal Food and Drug Administration in Washington by both your Standardization Committee and the Study Committee, iodized salt has been defined and regulations governing its labeling have been promulgated under the Federal Food and Drug Act and published in the Federal Register of November 22, 1941. No therapeutic statement can be placed upon the label, which must show the percentages of all ingredients added to the salt.

4. From the Committee on Food and Nutrition of the National Research Council comes this action, passed July 26, 1941:

"Moved: That the Committee on Food and Nutrition of the National Research Council recommends

that general widespread use of iodized salt be encouraged; that all iodized salt be standardized for the present at a level of $.$1 per cent potassium iodide or its equivalent and that the manufacturers of iodized salt be urged to continue their coöperation in this voluntary contribution to the public health. Adopted."

"The Chairman was instructed to transmit this resolution to the Surgeon-General of the United States Public Health Service, who had requested advice from the Committee in this matter; also the Chairman was instructed to send this information to the Surgeon-General of the Army, the Surgeon-General of the Navy, and the Coördinator of Health, Welfare, and Related Defense Activities." "(This recommendation has been transmitted as ordered—Dr. R. M. Wilder, Chairman.)"

This action of the Council has already been concurred in by both Study Committees.

"5. At a recent joint meeting of the Study Committee on Endemic Goiter of the A.P.H.A. and the Michigan State Medical Society's Committee on Iodized Salt, the following more comprehensive resolution as to their attitude was adopted:

"It is the unanimous opinion of this committee that the prevention of endemic goiter and its sequelæ, both in humans and in animals, can be approximated only by the addition of sufficient iodine to the salt used for food by humans and other animals."

"We would, therefore, recommend a joint study by medical organizations, public health officials, animal husbandry groups, and salt producers of the best way of extending the use of iodized salt as a method of iodine distribution."

"We especially recommend to salt producers to do all they can in regions deficient in iodine to extend the use of iodized salt for animal and human use."

The present problem before our State Committee is a historical compilation of the work and experience Michigan has had in the study of endemic goiter both by our State Society, our State Public Health Department, and by individual physicians.

Respectfully submitted,

Frederick B. Miner, M.D., *Chairman*
Thomas B. Cooley, M.D.
L. W. Gerstner, M.D.
David Levy, M.D.
R. D. McClure, M.D.
R. C. Moehlig, M.D.
H. A. Towsley, M.D.

ANNUAL REPORT OF COMMITTEE ON HEART AND DEGENERATIVE DISEASES, 1941-42

Due to current influences, the activities of this Committee have been fairly scant in the past year. One formal meeting was held on January 29, 1942, at which time the aims of this relatively new committee were discussed and it was decided that cardiology, peripheral vascular diseases, hypertension, nephritis, diabetes and like metabolic diseases, and the general subject of geriatrics were our major interests.

It was the sense of this meeting that since most of the emphasis had been placed on cardiology in the committee's first year, it should be our aim to concentrate on diabetes and peripheral vascular diseases which were being stressed in postgraduate sessions over the state. With this in view, it was the opinion of this group that a symposium on various fundamental aspects of Diabetes Mellitus should form the first "Institute on Preventive Medicine" to be given in Grand Rapids, September 22, the day before the beginning of the General Assembly program. The "Institute" had been suggested by this committee and its parent body, the Preventive Medicine Committee, and had been approved by the Executive Committee of The Council. A tentative plan was discussed and a sub-committee was instructed to draw up a final program.

At this same meeting, Maurice Meyers, M.D., was asked to draw up a brochure on the classification and management of peripheral vascular diseases to be presented to the Committee.

Since that time this latter has been postponed by Dr. Meyer's departure for military service. Also it was suggested in subsequent discussion among the Committee that the subject for the "Institute" be changed from that of "Diabetes Mellitus" to "Practice of Medicine in Total War." A tentative program to this end was decided upon, and the Preventive Medicine Committee and the Executive Committee of The Council approved this change in plans and the program as offered.

It is hoped that this first "Institute" will be a success and may be followed annually by other half-day programs of a similar nature. The Committee appreciates the ever present coöperation of The Council and of Wm. S. Reveno, M.D., and his Preventive Medicine Committee.

Respectfully submitted,

Richard M. McKean, M.D., *Chairman*
S. S. Altshuler, M.D.
B. B. Bushong, M.D.
M. S. Chambers, M.D.
John Littig, M.D.
M. P. Meyers, M.D.
E. D. Spalding, M.D.
H. H. Reicker, M.D. (Advisor)

ANNUAL REPORT OF RADIO COMMITTEE, 1941-42

During the broadcasting season, which extends from November through March, the M.S.M.S. radio talks were broadcast weekly from the following cities: Grand Rapids, Jackson, Lansing, Flint, Port Huron, Battle Creek, Bay City, Houghton, Kalamazoo, Muskegon, and Marquette.

The following subjects were given by doctors in these various cities:

Plastic Surgery
Skin Lesions and Their Relations to General Health
Marvels of Modern Surgery
Medicine and History
Stomach Trouble or Indigestion
Tuberculosis in the Children of Michigan
Foreign Bodies in the Lungs
The Clinical Significance of Impacted Teeth
Our Fight Against Infantile Paralysis
Disease of the Stomach
Influenza
Fall Health Hazards
Communicable Diseases Among School Children
Pneumonia
Health in National Defense
Sulfanilamide, Its Use in the Treatment of Blood Poisoning
War News from the Cancer Front
Sinusitis
Arthritis
Fat People
Common Misconceptions Regarding the Eyes.

These talks covering a fifteen-minute broadcast period had an opening and closing signature announcing it as a program of the Michigan State Medical Society.

Comments: Excellent coöperation has been obtained from Dr. C. A. Fisher of the University of Michigan Extension Bureau in securing and distributing scripts.

There seems to be a certain amount of lethargy on the part of some of the radio stations and the local county committees in presenting radio talks.

Suggestions: The Committee feels that didactic medical radio talks have passed their stage of usefulness and have lost their listener appeal. Unless a successful job in this specialized entertainment field can be done, the Society had best discontinue the present type of radio broadcasts.

The experience of the New York Medical Society with dramatized radio programs has been most successful, and also the series of dramatized programs under the heading "Magic in Medicine" presented by the Wayne County Medical Society, was likewise very successful. The New York Medical Society was on file a series of 13 broadcasts under the title "Doctors for Defense," which can be obtained for a sum of five dollars for the entire series. These scripts have been written by professional script writers and are very acceptable for broadcasts. This series might be presented by any local radio station properly equipped for dramatized programs, at which time electrical transcriptions could be made for distribution throughout the State. These programs have proved to develop and hold listener appeal.

Respectfully submitted,

R. J. Mason, M.D., *Chairman*
R. A. Burke, M.D.
E. A. Oakes, M.D.
G. C. Penberthy, M.D.
G. M. Waldie, M.D.

ANNUAL REPORT OF THE ETHICS COMMITTEE, 1941-42

The following questions were submitted to the committee during the past year:

1. *Question:* Should a doctor in private practice charge another doctor in the military service a full fee or any fee for medical services?
Recommendation: No fee should be charged.
2. *Question:* Blatant unethical advertising in two counties.
Recommendation: That a stern reprimand be given with the understanding that expulsion from the society would follow if reprimand not heeded.
3. *Question:* Several doctors in a certain county gave large gifts to the hospital to pay for private rooms, operating rooms, and special equipment. Is it unethical to place bronze plaques in the rooms with doctors' names upon them?
Recommendation: It is not unethical to place the bronze plaques in the rooms with doctors' names inscribed upon them.
4. *Question:* Should a doctor give medical, surgical or obstetrical care to a member of his family?
Recommendation: It is not advisable for a doctor to render such services to a member of his family, but it also is not prohibited.

No meetings of the committee were held during the year, all of the work being carried out by telephone and mail.

Respectfully submitted,

Clarence E. Toshach, M.D., *Chairman*
W. H. Alexander, M.D.
M. G. Becker, M.D.
F. M. Doyle, M.D.
Geo. B. Hoops, M.D.
J. J. McCann, M.D.
H. W. Porter, M.D.

ANNUAL REPORT OF COMMITTEE ON POST-GRADUATE MEDICAL EDUCATION, 1941-42

During the months of October, 1941, and April, 1942, the extramural practitioners' course was given in the centers of Saginaw-Bay City, Battle Creek-Kalamazoo, Flint, Lansing-Jackson, Mt. Clemens, Grand Rapids, Ann Arbor, and Cadillac-Traverse City. The subjects presented were:

October, 1941

The Modern Treatment of Fractures.
The Office Management of the Allergic Patient.
The Recognition and Prevention of Accidents of Pregnancy.
The Medical Complications of Pregnancy.
Emergency Drugs in General Practice.
The Office Management of the Diabetic.
The Diagnosis and Management of Cancer of the Gastro-intestinal Tract.

April, 1942

Approved New Methods and Drugs in Treatment of Medical and Surgical Conditions, with particular reference to present emergency. Panel discussion.
The Therapeutics of Whole Blood, Plasma and Serum.
Joint Pain and Its Treatment.
Peptic Ulcer. Panel discussion.
Estrogenic (steriod) Hormones.
Therapeutic Problems in Pediatrics.

The April program was divided equally between panel discussions and the formal lectures, and it was found that the panel discussions were very favorably received.

The teaching program recommended by your Committee and authorized by The Council for the Upper Peninsula was given during the week of May 25-30, at Sault Ste. Marie, Marquette, Houghton, Ironwood and Powers. All local arrangements were made by the Councillors and the county societies' officers. The presentations were given by a pediatrician, an obstetrician and gynecologist, a surgeon and an internist, as follows:

The Indications for and Selection of Sex Steroids.
An Explanation of the Newer Methods of Management of Heart Failure.
Office Surgical Procedures.
The Care of Accidents and Emergencies of the Newborn Period.
Panel discussion.

This has been one of our most successful undertakings. The meetings were well attended and the enthusiasm for a continuance of this contribution has been universal. Besides the reports from the Councilors there have been many letters of commendation from the membership of the Upper Peninsula, all expressing the hope that they may look forward to a similar contribution next year.

Intramural courses were given this year in anatomy, allergy, diseases of the blood and blood-forming organs, diseases of the heart, gastroenterology, electrocardiographic diagnosis, neuropsychiatry, nutritional and endocrine problems, obstetrics and gynecology, ophthalmology and otolaryngology, pediatrics, and roentgenology, as well as the short personal courses arranged on the basis of individual requirements. The registrations were as follows:

Extramural courses—October, 1941—April, 1942.

Ann Arbor	106
Flint	18
Grand Rapids	166
Kalamazoo-Battle Creek	138
Lansing-Jackson	162
Mt. Clemens	63
Saginaw-Bay City	162
Traverse City-Cadillac	102
Upper Peninsula (S. S. Marie, Marquette, Houghton. Ironwood, Power)	135
	1052

Intramural courses—		
Allergy	9	
Anatomy	35	
Diseases of Blood and Blood-Forming Organs	18	
Diseases of the Heart	16	
Electrocardiographic Diagnosis	40	
Gastroenterology	23	
Neuropsychiatry	9	
Nutritional and Endocrine Problems	39	
Obstetrics and Gynecology	9	
Ophthalmology and Otolaryngology	51	
Pediatrics	6	
Personal Courses	116	
Roentgenology	27	431
Summer Session (1941)	33	
		1483

(Registrations at Continuation School of Wayne County 150
Registration at Ingham County Medical Society Clinic, May 7, 1942...216)

On account of the large number of the profession going into active military service and the added duties of those remaining at home, involving as it will both teaching personnel and those usually found in attendance, considerable thought has been given by your Committee to reducing to a minimum the number of meetings of all kinds, while still preserving so far as possible their essential value. The suggestion of The Council's County Societies' Committee of two years ago for one-day concentrated program to replace our present four-day semi-annual program was again reviewed. It was decided that an attempt should be made to condense the four-day program, which has been functioning so successfully, into two days for at least the present year, the feeling being that it would be more convenient for the practitioner to attend a part of two days rather than give up one entire day from practice, which would be necessary if the suggestion of The Council's County Societies' Committee was followed. This compromise was unanimously agreed to by the Committee. The hours for the presentations in the various centers will be selected, as usual, by the local groups.

Your Committee invites attention to the importance of the postgraduate teaching program for the coming year. Medical service to the State will have to be supplied in increasing degree by the older physicians, many of whom will require some means of renewing their knowledge on the advances and recent techniques in practice without absenting themselves for long periods from their communities. It is also essential that the organization that has been built up over the years be maintained so that it will be ready to meet the needs of the doctors returning from military service whose opportunities for professional advancement during this period will in most instances be much less adequate than those afforded by the Michigan program.

It is now fifteen years since The Council of this Society invited the representatives of both our medical schools to confer with it on ways and means for the development of a program of postgraduate education for our profession. The Council and the representatives of both medical schools agreed that this would best be accomplished through a centralization of direction and a decentralization of teaching activities. That this plan has served well the professional interests of the State is evidenced by the continued attendance of a greater percentage of its members on its programs than that of any other state of which we have knowledge. It is not unfair also to assume that the marked improvement in local society and hospital programs has been influenced by our out-state plan of teaching as well as by those national boards and organizations which have contributed so effectively to hospital staff activities. Furthermore, is it unfair to assume that the excellent postgraduate programs and conferences developed notably in Wayne and Ingham counties have been influenced by the successful operation of the Michigan State Medical Society program over the last decade and a half. And finally, may we not properly feel some satisfaction in the regard in which this program is held by all our sister states and emulated by many.

Respectfully submitted,

JAMES D. BRUCE, M.D., *Chairman*
A. P. BIDDLE, M.D.
H. H. CUMMINGS, M.D.
DOUGLAS DONALD, M.D.
W. B. FILLINGER, M.D.
HENRY A. LUCE, M.D.
C. L. HESS, M.D.
EDGAR H. NORRIS, M.D.
RALPH H. PINO, M.D.
D. C. STEPHENS, M.D.
WM. E. TEW, M.D.
J. J. WALCH, M.D.

REPORT OF PUBLIC RELATIONS COMMITTEE, 1941-42

Due to the call to Military Service, the Chairman of the Public Relations Committee is submitting to the Executive Committee of The Council the Annual Report for 1941-42.

Shortly after the Declaration of War by our Nation against the Axis Powers the various inter-related committees of the Michigan State Medical Society took on increased activities in Medical Preparedness, Procurement and Assignment of Physicians, and Civilian Defense. It immediately became the chief function of the Public Relations Committee to integrate and publicize these activities to the County Medical Societies.

The Public Relations Committee held a meeting in Lansing, January 25, the evening before the Annual County Secretaries' Conference, at which there was a full discussion of Medical Preparedness, Michigan Medical Service, Problems of Medical Welfare, Ethics, County Health Units, and other related subjects. Soon after this meeting the Secretary of the M.S.M.S. sent a letter to each County Society inviting it to request speakers from the Public Relations Committee to address the society on the subject of Medical Preparedness, Procurement & Assignment of Physicians, and Civilian Defense.

The sixteen Councilor Districts were allocated, according to proximity, to the various committee members who responded to the requests for speakers. The call for speakers of every County Society was answered and fulfilled.

A total of twenty-eight meetings were addressed throughout the State. The average attendance at the meetings was forty to fifty, except in the smaller County Societies, where it was ten to twenty. Talks were given to the following County Societies: Calhoun, Kalamazoo, St. Joseph, Van Buren, Berrien, Bay, Saginaw, Alpena-Alcona-Presque Isle, Dickinson-Iron, Houghton, Ontonagon, Gogebic, Sanilac, Jackson, Genesee, Hillsdale, Ingham, Delta-Schoolcraft, Luce, Kent, Oceana, Mason, Manistee, Ionia-Montcalm and Allegan. In addition talks were given to the Southwestern Society of Michigan State Health Officers, the Medical Society of North Central Counties, and the Council of the Wayne County Medical Society.

The interest shown in each of these meetings was well worth the efforts of traveling through snowdrifts and over icy pavements to reach the meeting places. The Chairman of the Public Relations Committee wishes to thank each and every committee member for his loyal coöperation and valuable assistance in making the work of the Committee so successful this year. This opportunity is also taken to express appreciation to L. Fernald Foster, M.D., Mr. William J. Burns and Mr. Lynn Leet of the Executive Offices of the M.S.M.S. for their kind and helpful assistance.

When the Chairman of the Public Relations Commit-

tee is restored to civilian life after doing his bit to win the War, he hopes once more to be given the privilege of association with the Public Relations Committee of the M.S.M.S.

Respectfully submitted,

HARRISON S. COLLISI, M.D., *Chairman*
A. E. CATHERWOOD, M.D.
C. G. CLIPPERT, M.D.
JOHN S. DETAR, M.D.
H. C. HILL, M.D.
A. H. MILLER, M.D.
FRED REED, M.D.
D. R. SMITH, M.D.
A. W. STROM, M.D.

ANNUAL REPORT OF ADVISORY COMMITTEE TO WOMAN'S AUXILIARY, 1941-42

During the past year, no subjects regarding the Auxiliary were brought to this Committee that could not be handled by correspondence—hence no meetings were called.

It is not to be inferred from this that the Auxiliary has not been active. The reverse is true.

It is with pleasure that this Committee takes note that Michigan's Auxiliary of 1,257 members is an active, live, and a growing organization — interesting itself in activities concerned with health and the public welfare.

The national program—outlined by the Woman's Auxiliary to the A.M.A.—was faithfully carried out, and in addition the following state activities have been accomplished:

1. Hospital Insurance for Physicians' Widows (individual contracts).
2. Set up a Student Loan Fund and provided for its administration—available to the children of living or deceased members of the M.S.M.S. during their third and fourth years in Class "A" medical schools.
3. Organized three new counties.
4. Publication of a State Bulletin.
5. Sponsoring jointly with the Michigan Tuberculosis Association a High School Radio Contest under plans outlined by the Tuberculosis Association.

Respectfully submitted,

A. V. WENGER, M.D., *Chairman*
C. W. BRAINARD, M.D.
G. F. FISHER, M.D.
L. C. HARVIE, M.D.
WM. S. JONES, M.D.
R. F. SALOT, M.D.

REPORT OF REPRESENTATIVES TO THE CONFERENCE COMMITTEE ON PRELICENSURE MEDICAL EDUCATION, 1941-42

The Conference Committee on Prelicensure Medical Education has had but one meeting. At this meeting it invited representatives of the different hospitals of the state to meet with it. Twenty hospitals were represented, several of them sending more than one representative, to a total of twenty-seven.

The chairman explained that the meeting was called for a discussion of the following subjects:

1. A plan designed to improve the quality of intern teaching through a standardization of curricula.
2. Resident training with a view of collaboration with our two medical schools.
3. For a general consideration of the intern problem from the standpoint of the hospital, its staff, and the fifth-year student.

A quite fruitful discussion ensued on various phases of intern education.

It has seemed to your Committee that it is both proper and advisable that the M.S.M.S. Committee on Postgraduate Medical Education assume a degree of responsibility for intern instruction in the nonaffiliated hospitals. This has met with the approval of The Council and the Postgraduate Committee. The latter Committee is now at work on the first step, that of providing a curricula. The curricula will be worked out after consultation and collaboration with representatives of the two medical schools. Those who may be interested in seeing some further comments on this plan will find them in an article by your chairman, entitled, "The Relation of Postgraduate Committees to Intern Instruction in Unaffiliated Hospitals. Should the State Society Assume Any Responsibility for Such Intern Instruction?", published in the May issue of THE JOURNAL of the Michigan State Medical Society. Incidentally, the article has elicited considerable interest in other states, indicating the interest in this pioneer work. The plan is a log cal development of our postgraduate activity. It means that the State Society accepts responsibility for postgraduate education from the time the student graduates until he ceases to practice.

It is clear thtat the war situation will delay the operation of any plan which may be devised, but we believe that at the end of this period there will be a very special need for help and advice, and we want to be prepared to furnish it.

The chairman has attended meetings of the Postgraduate Committee in the furtherance of this plan from time to time.

Respectfully submitted,

BURTON R. CORBUS, M.D., *Chairman*
L. FERNALD FOSTER, M.D.
J. M. ROBB, M.D.

ANNUAL REPORT OF COMMITTEE ON NURSES TRAINING SCHOOLS, 1941-42

This Committee sent out fifty-two letters to the smaller hospitals in the State asking their reaction to the nursing situation in their communities. The letters that were received indicated first, that there exists a very acute shortage of good nursing care in this State, and second, that the State Board of Registration for Nurses has made feeble and ineffective efforts to remedy this situation.

This Committee feels that provision should be made for the establishment of Schools for Trained Attendants in the smaller communities where regular nursing schools cannot be established, and that these be so governed that at the completion of the basic year of training the Trained Attendant be obliged to complete a further term of six to twelve months in the same hospital, at a salary to be agreed upon. This would eliminate the present situation of having untrained girls caring for patients.

This Committee likewise recommends that pressure be brought to bear on the State Board of Registration for Nurses through the Legislative Committee and through the Governor, bringing to his attention their continued refusal to recognize the true situation, and endeavor to induce them to coöperate in the establishment and maintenance of the above-mentioned schools.

Respectfully submitted,

ELLERY A. OAKES, M.D., *Chairman*
I. W. GREENE, M.D.
G. F. FISHER, M.D.
EDW. MEISEL, M.D.
A. E. STICKLEY, M.D.
D. W. THORUP, M.D.

ANNUAL REPORT OF BEAUMONT MEMORIAL COMMITTEE, 1941-42

Due to the press of new problems that have confronted us this year, this Committee has not held a meeting and no new actions have been undertaken. Consequently, the status of action is exactly as it was in the last report.

Respectfully submitted,

FREDERICK A. COLLER, M.D., *Chairman*
HENRY R. CARSTENS, M.D.
H. H. CUMMINGS, M.D.
A. C. FURSTENBERG, M.D.
ALLAN MCDONALD, M.D.
LAWRENCE REYNOLDS, M.D.

✶ YOU AND YOUR BUSINESS ✶

SUSPICIOUS CASES OF POLIO

A number of cases of poliomyelitis might well be avoided if the cases were diagnosed in their very early stages and proper steps were taken. This might cut down the number of dangerous contacts.

During the approaching season when the disease is most likely to occur, each physician's attention is invited to the need for early consultation, should a suspicious case of poliomyelitis arise in his practice. Where the family is financially unable to provide this consultation service, compensation therefor will be paid from Afflicted-Crippled Child funds or by county Chapters of the National Foundation for Infantile Paralysis, after proper authorization and approval.

Do not delay in reporting suspicious cases of poliomyelitis and in seeking consultation. To secure consultation service in an indigent family, notify the secretary of your county medical society who will telegraph collect the Michigan Crippled Children Commission, 458 Hollister Building, Lansing (telephone 4-3716), or will contact the county or district Chapter of the National Foundation for Infantile Paralysis for authorization. Where possible, a consultant of the physician's choice will be supplied if his name appears on the approved list.

— Buy More War Bonds —

THE FUNCTIONS OF PROCUREMENT AND ASSIGNMENT SERVICE

Procurement and Assignment Service, a professional agency created by the President upon the recommendation of the medical profession, has the following functions:

1. To procure knowledge concerning physicians and to assign them when requisitioned by the Army or Navy or other governmental agencies;

   P. and A. Service does not grant commissions, but it aids the definite objective ahead of all of us—the winning of this war—by helping to meet the immediate needs of the armed forces of the United States.
2. To locate doctors of medicine in the positions in which they would be best fitted to render service, either in military, or naval, or care of civilian populations, or in essential industry.
3. Assure the Army and Navy that it procures physicians of ethical standing and integrity.
4. Make certain that physicians receive commissions in Army and Navy, and are not drafted as privates with a loss of their valuable technical and scientific knowledge to the Service.
5. Assure that essential men in certain key positions are retained.
6. Ward against the depletion of medical service in the various communities of the State.

— Buy More War Bonds —

MALINGERING

"Malingering with regard to injuries has been so prevalent that it behooves both the legal and medical profession to seek a more thorough understanding of the symptoms generally feigned as well as of certain diagnostic points, the presence or absence of which will either prove or disprove the allegations.

"The malingerer is costing American industry more than one and one-half million dollars annually, therefore it is expedient that the industrial physician acquaint himself as extensively as possible with the various angles of medical jurisprudence, and with as many of the ruses resorted to by the malingerer, as possible."—*J. R. Garner, M.D., A. J. Med. Jurispr.—March-April, 1939.*

— Buy More War Bonds —

MEDICAL RECRUITING BOARD PROCEDURE

The procedure of the Medical Recruiting Board of Michigan, as outlined by Lt. Colonel John G. Slevin, MC, is as follows:

1. Physican applies to Medical Recruiting Board of Michigan; application taken.
2. The Procurement and Assignment clearance papers are prepared and forwarded to the Procurement and Assignment Committee of Michigan.
3. Physician goes for physical examination.

4. Physician returns on appointed date to obtain commission and take oath of office, or be rejected for any type of military service; (commission is only granted with a clearance from the Procurement & Assignment Committee).
5. Following granting of commission:
   (a) Selective Service is notified;
   (b) P. and A. is notified;
   (c) A file is forwarded to the Surgeon General.
6. In case of rejection either for physical disability or for reason of being essential, the following procedure is followed:
   (a) P. and A. is notified;
   (b) Selective Service is notified;
   (c) The physician himself is notified;
   (d) Part Three of the Availability Clearance Form, P. and A. is forwarded to the Surgeon General.

   Physician is allowed two weeks following the taking of oath of office before he is subject to call for active duty in the Army. This period may be extended for good and sufficient reasons up to an additional two weeks.

— Buy More War Bonds —

OBSTETRICAL FEE IN CRIPPLED-AFFLICTED CHILD CASES

The Michigan Crippled Children Commission, on May 1, gave consideration to various changes in the schedule of benefits for medical care of Afflicted and Crippled Children. The only revision made by the Commission was the fee for obstetrics which was set at $25.00 on and after July 1, 1942.

It was understood that this fee represents a discount of approximately 50 per cent of the normal fee, which is voluntarily offered by Michigan physicians for care of wards of the State.

Doctors are requested to change their printed fee schedules in accordance with this revision made by the Commission.

AFFILIATE FELLOWS OF A.M.A.

At the Atlantic City meeting in June, 1942, the AMA House of Delegates honored nineteen Michigan physicians with Affiliate Fellowship.

These doctors of medicine, all of whom are Members Emeritus of the Michigan State Medical Society, are: Charles D. Aaron, M.D., Detroit; Andrew P. Biddle, M.D., Detroit; D. M. Campbell, M.D., Detroit; George E. Frothingham, M.D., Detroit; W. L. Godfrey, M.D., Battle Creek; A. M. Hume, M.D., Owosso; John H. Kellogg, M.D., Battle Creek; Abraham Leenhouts, M.D., Holland; Donald K. MacQueen, M.D., Laurium; Wm. C. Martin, M.D., Detroit; S. G. Miner, M.D., Detroit; Walter R. Parker, M.D., Detroit; G. L. Renaud, M.D., Detroit; A. J. Roberts, M.D., Jackson; Edward Sawbridge, M.D., Stephenson; R. H. Stevens, M.D., Detroit; A. B. Thompson, M.D., Grand Rapids; J. E. G. Waddington, M.D., Detroit; and J. A. Wessinger, M.D., Ann Arbor.

IN MEMORIAM

Norman McLeod Allen, of Detroit, was born in Calumet, Michigan, on April 11, 1883. He attended Ferris Institute at Big Rapids, Michigan, entered Detroit College of Medicine and Surgery in September, 1906, and was graduated therefrom in 1910. He served a two-year internship at Harper Hospital, and in 1912 became associated with the late Max Ballin, M.D. Doctor Allen was a member of the staff of Harper Hospital, and was an able, skillful surgeon. He died on May 9, 1942.

Glenn Grieve, of Big Rapids, was born in Coopersville, Michigan, in 1879, and was graduated from the University of Michigan Medical School in 1918. He located in Big Rapids and remained there until the time of his death. Doctor Grieve was active in many civic organizations and was chairman of the county draft board until his recent resignation due to illness. He was on the staff of Community Hospital since its organization. He had served as president of the Mecosta-Osceola County Medical Society and was secretary at the time of his death. Dr. Grieve died May 6, 1942.

MICHIGAN'S DEPARTMENT OF HEALTH

HENRY A. MOYER, M.D., Commissioner, Lansing, Michigan

15,000 EXAMINED IN TEXAS

Fifteen thousand Mexican laborers who applied for work in Michigan's sugar beet fields were recently examined for tuberculosis in Texas by the Michigan Department of Health.

This is the fourth year the examinations have been carried on in Texas by the Department and in those four years, 32,000 fluoroscopic examinations were made. Those persons found to have tuberculosis were refused employment. This year 204 were rejected, bringing to 603 the total number of tuberculous patients who have not been permitted to come to Michigan to work in the beet fields.

As in the past, the examinations were made in coöperation with an association of Michigan beet growers and processors. Examination centers were established in San Antonio and Dallas with the help of the Texas State Department of Health, the city health departments of San Antonio and Dallas and the Bexar and Dallas county health departments.

WAR COMPLICATES TYPHOID CARRIER CONTROL

Closer check of Michigan's 271 known chronic typhoid carriers is a wartime problem of the Michigan Department of Health. Wartime conditions are returning many of these persons to payrolls and are influencing changes of residence.

Typhoid carriers are required to notify local health officers and the State Health Department of changes of address. They cannot work in any capacity in restaurants or other establishments in which food is served.

Since the first of the year, sixteen cases of typhoid have been reported to the Department. Last year's total for the period was thirty-six.

IMMUNIZATIONS PLANNED FOR MEXICAN CHILDREN

Immunizing against diphtheria and smallpox during coming weeks of an estimated 15,000 children of Mexican workers in Michigan sugar beet fields is planned by the Michigan Department of Health as insurance against outbreaks of the diseases which could threaten Michigan children. Beet growers and processors are coöperating with the Department in the program.

Plans for the program call for the immunizing of all Mexican children under the age of twelve who accompany their parents from Texas to Michigan beet growing areas this summer. Local health officers and physicians will give the protective treatments. Assistance of growers and processors in rounding up the children has been promised, so that the immunizing can be carried on expeditiously in clinics.

Principal immunizing centers are expected to be in Blissfield, Saginaw, Bay City, Mt. Pleasant, Lansing, Sebewaing and Caro.

TUBERCULOSIS "CURE"?

Successful vaccination of children against tuberculosis, reported recently in newspapers, holds no immediate hope of a "quick cure" of adult victims of the disease. This was the statement released by the Department to newspapers shortly after an announcement of an experiment among Chicago children with Bacillus Calmette-Guerin vaccine.

The Department pointed out that experiments with this tuberculosis vaccine have been carried on since 1906. Efforts of experimenters have been to weaken a virulent strain of tuberculosis organisms produced in cattle to a point where a vaccine made from them will confer immunity in humans. There is always the possibility that the vaccine may become virulent and dangerous to use and European experiments were halted for several years after disaster attended the vaccination of infants in Lubek, Germany, in 1922. Careful work has been carried on at different points in the United States over a period of years, and the results obtained have been disputed by other equally careful workers. Similar reports of success have been made previously.

Until such time as the use of this vaccine is sanctioned by the American Medical Association, said the Department, people should not place many hopes on its effectiveness as a tuberculosis cure or preventive.

142,000 DOSES OF TOXOID

Since March 1, Department laboratories at Lansing, Houghton, Powers and Grand Rapids have supplied 142,262 doses of diphtheria toxoid to thirty-three Michigan counties for use in the state's immunization campaign.

Physicians who are on the firing line in the campaign report they are finding an unexpected high percentage of school age children already protected, indicating that there is an increased understanding on the part of Michigan parents of the need for immunizing their children against diphtheria.

Diphtheria caused 18 deaths in Michigan in 1941, an all-time low. Decline in deaths has been steady since 1921, when Michigan's diphtheria death rate of 25.2 per 100,000 persons was highest in the nation.

Woman's Auxiliary

Bay County

The Woman's Auxiliary to the Bay County Medical Society had its final meeting for this spring, Wednesday, May 20, at Mrs. Paul R. Urmston's home.

Following a potluck dinner, Mrs. George M. Brown, president, conducted the business meeting. Mrs. Brown announced that she, Mrs. Kent A. Alcorn and Mrs. John H. McEwan will be delegates to the state convention in the fall, Mrs. R. E. Scrafford and Mrs. W. S. Stinson to be alternates.

Mrs. William J. Butler, president of the State Auxiliary, and Mrs. Henry J. Pyle, state secretary of the Auxiliary, were guests. Mrs. Butler gave an informal talk on the work of the State Medical Auxiliary.

Genesee County

A joint session of new and past board members of the Auxiliary to the Genesee County Medical Society was held Tuesday, April 21, 1942, at the Y.M.C.A. It was decided to make the next meeting a Silver Tea to help defray convention expenses; also to cut refreshments to a minimum for the duration using money thus saved to buy defense stamps which will be available at each monthly meeting.

The first meeting under the new officers was held April 28, at the home of Mrs. W. P. Boles. Mrs. R. W. McGregor, secretary, took charge in the absence of President Mrs. Stephen Gelenger and Vice President Mrs. C. W. Colwell. Chairmen of the standing committees were introduced and their reports given. Members were asked to send or bring their donations of money, clothing or bandages for the Kings Daughters Home for children, to the President.

Mrs. Kenneth R. Sandy, program chairman, introduced Mrs. Wm. Wray Squire who gave a sparkling review of "The Vanishing Virginian" by Rebecca Yancey Williams.

Following adjournment, members enjoyed a social hour with Mrs. Wm. B. Hubbard and Mrs. G. L. Willoughby presiding at the tea services.

Hostesses for the tea were Mrs. H. T. White and Mrs. Don Wright. Assisting were Mrs. Arthur Gleason, Mrs. Jas. A. Olson, Mrs. W. Z. Rundles, Mrs. L. L. Willoughby, Mrs. James Rowley, Mrs. Guy Briggs and Mrs. C. P. Clark.

Jackson County

The members of Auxiliary to Jackson County Medical Society have been entertained at a dinner dance given by the Doctors, also by the Auxiliary to the Dental Society, at which time Mrs. I. Miller, of Lansing, reviewed "There Shall Be No Night" by Robert Sherwood.

The book review by Mrs. Chas. Dengler, "Mission to Moscow," was timely and very well done.

The "Doctors' Children" were guests at the April meeting and entertained with musical selections, readings, and dances.

The Annual Meeting of Jackson County Auxiliary was held May 19, 1942, at the Country Club. Election and installation of officers followed: president, Mrs. E. O. Leahy; vice president, Mrs. M. D. Wertenberger; secretary, Mrs. Henry Balconi; treasurer, Mrs. Ferdinand Cox; and assistant treasurer, Mrs. Wm. Faust.

A pageant "Down Through the Years" was presented by the past presidents. Arranged and directed by Mrs. T. E. Hackett, the pageant had ten episodes depicting scenes in an Antique Shoppe.

Mrs. E. A. Thayer gave three violin solos.

Kalamazoo County

The Kalamazoo Auxiliary's April program which was entitled, "Be Informed About Your Auxiliary" was most interesting and informative. Mrs. Homer Stryker presented an article on the Woman's Auxiliary to the American Medical Association, and the American Medical Association. Mrs. James Malone, Auxiliary historian, then discussed the history of the local group.

This was organized 15 years ago, September 20, 1927. Dr. Carolyn Bartlett Crane, in charge of organizing Woman's Auxiliaries throughout the state, appointed Mrs. Wm. E. Shackleton as local chairman.

There were 25 members present and a cooperative dinner was served from a table centered with a large bowl of pansies. Mrs. Ralph Fast, was the hostess.

During the business meeting which followed, members voted to send a check to the Women's Field Army of Cancer Control.

The annual meeting of the Woman's Auxilary to the Kalamazoo Academy of Medicine was held May 19, 1942, at the home of Mrs. Hugo Aach.

A coöperative dinner was served from a table centered with calendulas and daisies. The business meeting followed and annual reports were read and accepted. The new officers unanimously elected for the new year are: Mrs. James Malone, president; Mrs. Sherman E. Andrews, president elect; Mrs. Louis Gerstner, vice president; Mrs. John Fopeano, secretary; Mrs. Hugo Aach, treasurer.

Wexford County

This is to announce the arrival of a new auxiliary to the Michigan State Medical Society. The Wexford-Missaukee physicians' wives formed their organization in April, at Manton, Michigan, with Mrs. W. J. Butler, state president, assisting with the details and advising of the work done by established groups.

COUNTY AND PERSONAL ACTIVITIES

L. Fernald Foster, M.D., Bay City, was luncheon speaker at the meeting of the Saginaw Valley Dental Society held in Bay City on May 27.

* * *

The Mecosta-Osceola County Medical Society elected new officers as follows: President—Jacob Bruggema, M.D., Evart; Secretary-Treasurer—J. A. White, M.D., Big Rapids.

* * *

The Bulletin of the Calhoun County Medical Society announces that the President was authorized to appoint a committee of Calhoun County physicians to coöperate in giving a Nurses Aid Course, sponsored by the American Red Cross.

* * *

L. Fernald Foster, M.D., Bay City Secretary of the Michigan State Medical Society, has been appointed a member of the Advisory Council to the Board of Directors of the Michigan Chapter, National Foundation for Infantile Paralysis.

* * *

E. F. Sladek, M.D., Traverse City, was guest speaker at the meeting of the Wexford-Missaukee County Medical Society held in Cadillac on May 28. Doctor Sladek's subject was "The Early Diagnosis of Cancer of the Colon."

* * *

Flint's First Nurse, an article by R. S. Morrish, M.D., was published in the *Bulletin of the Genesee County Medical Society* of May 26, 1942. "Auntie Starr" (Mrs. Mary Starr) was the subject of this article. She started nursing in Flint in 1847.

* * *

War Expenditures.—U. S. Budget Director Harold D. Smith revealed June 18, that America's arms factories are rolling so fast now that government war expenditures have climbed to approximately $1,000,000,000 per week, *almost triple those of the British.*

* * *

Correction! Through a typographical error, the name of Daniel R. Donovan, M.D., Detroit, was not included in the Roster of members of the Michigan State Medical Society which appeared in the May issue of THE JOURNAL. Apologies!

* * *

The officers of the American Medical Association for 1942-1943 are as follows: James E. Paullin, M.D., Atlanta, Georgia, president-elect; William J. Carrington, M.D., Atlantic City, New Jersey, vice president; Olin West, M.D., Chicago, secretary; and Herman L. Kretschmer, M.D., Chicago, treasurer. Col. Fred W. Rankin, M.C., Lexington, Kentucky, was inducted as president for the coming year.

Howard H. Cummings, M.D., Ann Arbor, President-elect of the Michigan State Medical Society, was elected President of the Tri-State Medical Association at its recent meeting. The next meeting of the Association will be held in Ann Arbor in the spring of 1943.

* * *

Physicians and Congressmen are both going to have X cards issued to them for gasoline rationing. We will all have to be careful or we might be mistaken for a Congressman after July 1, 1942, and what a hell of a mistake that would be. Pass the sugar, please.—*Bulletin, Oakland County Medical Society,* June, 1942.

* * *

The Kalamazoo Academy of Medicine holds a "Master Policy" of insurance which covers the contents of medical bags of members, according to the June *Bulletin of the Kalamazoo Academy.* In addition to the Academy premium, a small fee is paid by the individual doctor for this valuable coverage.

* * *

The Eaton County Medical Society elected new officers for the coming year at its meeting of June 18, 1942, as follows: President—Paul Engle, M.D., Olivet; Vice President—Don V. Hargrave, M.D., Eaton Rapids; Secretary-Treasurer—L. G. Sevener, M.D., Charlotte; Delegate—Don V. Hargrave, M.D., Eaton Rapids.

* * *

Emmet Richards of Alpena was appointed Chairman of the Crippled Children Commission following the death of Paul King, Detroit, on May 17. The other members of the Commission are: Maurice Aronsson, Detroit; George R. Cooke, Detroit; Max Reynolds, Marquette; and H. B. Fenech, M.D., Detroit.

* * *

The Bulletin of the Muskegon County Medical Society is requesting members in active military service to supply it with photographs of themselves in uniform for future publication.

This is a thought that could be followed by all county medical societies of the State. Such photographs in their society archives may be very interesting and important in future.

* * *

The American Congress of Physical Therapy will hold its twenty-first annual scientific and clinical session September 9 to 12 at the Hotel William Penn, Pittsburgh, Pennsylvania. For information concerning the seminar and program of the convention proper, address the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Illinois.

* * *

No Lack in Biolac!

WITH THE sole exception of vitamin C, Biolac provides completely for the formula needs of normal infants throughout the entire bottle period. From the time when infants consume a full quart of formula per day, here's how certain essential food factors supplied by Biolac feedings compare with the minimal nutritional requirements recognized by the U. S. Food and Drug Administration.

	MINIMAL REQUIREMENTS	BIOLAC FEEDINGS
PROTEIN (gms./lb. body weight)	1.4 to 1.8*	2.2†
CALCIUM (gms./day)	1.0*	1.0
IRON (mgms./100 calories)	0.75	1.25
VITAMIN A (U.S.P. Units/day)	1500.	2500.
VITAMIN B_1 (U.S.P. Units/day)	83.	85.
VITAMIN B_2 (mgms./day)	0.5	2.
VITAMIN D (U.S.P. Units/100 calories)	50.	63.

*The Food & Drug Administration has not promulgated minimum requirements for protein and calcium in infancy. The values shown are those recommended by the National Nutrition Conference.

†When Biolac formulas are fed in the amount of 2½ fl. oz./lb. body weight.

Biolac is prepared from whole milk, skim milk, lactose, vitamin B_1, concentrate of vitamins A and D from cod liver oil, and ferric citrate. Evaporated, homogenized, *sterilized.*

Borden's BIOLAC

A BORDEN PRESCRIPTION PRODUCT

Your Annual Meeting

The Michigan State Medical Society Annual Meeting will be held Sept. 23, 24, 25 in Grand Rapids. You'll be anxious to get away from the cares of your practice to enjoy a few days of postgraduate medical work (for which credit will be given you) so write today for your hotel reservations. A total registration of 2,000 is anticipated.

The Nutrition Foundation, Chrysler Building, New York City, announces grants-in-aid for research projects concerned with advancing the science of nutrition. Grants-in-aid will be made available to established research institutions, upon recommendation of the Scientific Advisory Committee and the Board of Trustees of the Nutrition Foundation, Incorporated.

* * *

The Upper Peninsula Medical Society's 1942 meeting will be held July 23-24 in Marquette. The following lecturers will be on the program: James D. Bruce, M.D., Frederick A. Coller, M.D., Albert C. Furstenberg, M.D., Norman F. Miller, M.D., Louis H. Newburgh, M.D., and Herman H. Riecker, M.D., all of Ann Arbor; Robert L. Novy, M.D., and Louis J. Hirschman, M.D., of Detroit.

* * *

"Renal Changes in a Case of Sulfadiazine Anuria" by H. A. Bradford, M.D., and J. H. Shaffer, M.D., Detroit, was published in the *Journal, American Medical Association,* issue of May 23, 1942; in the issue of June 6, 1942, "Nervous and Mental Effects of the Sulfonamides" by Sam C. Little, M.D., of Ann Arbor, and "Elimination of Color from Visual Hemoglobinometry" by Don H. Duffie, M.D., Central Lake, Michigan, appeared.

* * *

The Ingham County Medical Society Bulletin of May, 1942, contains the following important item:

"Notice to Doctors Leaving for Service: It is important that you notify the City Assessors' Office of your leaving for Service in the Armed Forces. In so doing your equipment will be taken from the tax rolls and you will not have to pay the personal tax on it unless it is still being used by some other person."

* * *

An Advisory Committee for the Revision of the Compensation Law of the State of Michigan, appointed by the Michigan State Medical Society, made presentation of proposed changes to the Special Committee to Study and Re-Write the Workmen's Compensation Act, in Detroit on

Thursday, June 4, 1942. The Special Committee is composed of J. Duane Miller, M.D., Grand Rapids, Chairman; W. B. Harm, M.D., Detroit and C. E. Lemmon, M.D., Detroit.

* * *

Ellery A. Oakes, M.D., Manistee, Chairman of the MSMS House of Delegates' Special Committee on Nurses' Training Schools, was nominated on June 18 by President Henry R. Carstens as the representative of the MSMS on a Special Joint Committee to consider the Problems of Nursing in the Hospitals of Michigan, a subcommittee of the Michigan Nursing Council for War Service of the Michigan State Nurses Association.

* * *

Michigan physicians who won Honorable Mention in the Scientific Exhibit of the American Medical Association at Atlantic City in June were Frank W. Hartman, M.D., Victor Schelling, M.D., Henry N. Harkins, M.D., Brock Brush, M.D., and Kenneth W. Warren, M.D., Detroit, for their exhibit on the "Relative Value of Pectin Solution in Shock"; also Thomas N. Horan and C. Graham Eddy, M.D., of Detroit, on "Laparoscopy; Intra-Abdominal Photography in Color."

* * *

To back up each fighter, eighteen makers and handlers of war materials are necessary. This will include many businessmen. The ratio in 1942 is 18 to 1, whereas the ratio in 1917-1918 was 5 to 1. Therefore, civilian work is the key to eventual success and to winning the war! Every businessman (including every doctor of medicine) is enlisted and is most essential in the war effort. This is a cold fact, that must be realized by every citizen.

* * *

Special Memberships.—County Society Secretaries are invited to submit to the Michigan Medical Society the names of any physicians for whom special membership (Emeritus, Retired, Associate) in the State Society will be sought at the 1942 MSMS House of Delegates, September, 1942, in Grand Rapids. Certification of these names at this time will permit the Executive Office to ascertain in advance of the meeting whether the qualifications of each physician meet the requirements as set by the MSMS Constitution.

* * *

Michigan physician-artists were among the exhibitors at the Fifth Annual Exhibition of the American Physician's Art Association at Atlantic City, June 8-12, 1942, including Morris Braverman, M.D., Detroit; Russell Palmer, M.D., St. James; and H. F. Warden, M.D., Dearborn. The Art Association provides for the public showing of photography, oils, drawings, carvings and other forms of art produced by members of the medical profession. The exhibit in Atlantic City was made possible through the coöperation of Mead Johnson & Company.

Protection against diphtheria and smallpox was given to 3,741 children by 33 Washtenaw County physicians in one of the most successful immunization programs reported so far, according to an announcement by the Michigan Department of Health.

The program was planned and carried out by the Washtenaw County Medical Society and the Washtenaw County Health Department and was a part of the state-wide immunization campaign prompted by President Roosevelt's May Day-Child Health Day proclamation.

* * *

"What Does the Nurse Do If a Bomb Drops on Main Street?" is the title of a governmental news release.

Our answer is: "What do *you* think she does? I'm guessing one thing, and I'm sticking to it!"

* * *

With so many doctors joining the armed forces, there's a heavy demand for competent midwives, particularly in rural areas . . .

. . . . *A group of chiropodists* is trying to round up support for a bill for establishing a Podiatory-Chiropody Corps in the army and navy medical departments.—*June 8, Periscope, News-Week.*

* * *

John M. Murphy, M.D., Detroit, won the St. Louis Trophy at the 1942 Tournament of the American Medical Golfing Association held on June 8, at Seaview Country Club, Atlantic City. Doctor Murphy was top man in the Championship Flight (gross, thirty-six hole competition).

G. Thomas McKean, M.D., Detroit, was the winner of the Golden State Trophy, emblematic of Champion in the eighteen-hole event. More than two hundred golfing physicians participated in the tournament including Carl Badgley, M.D., Ann Arbor; F. C. Bandy, M.D., S.S. Marie; Edw. Dowdle, M.D., H. W. Reed, M.D., and Walter J. Wilson, M.D., of Detroit.

* * *

Mental Test Flaw.—Medical men who should know say the figures on Army rejections for mental deficiency may not present a true picture. They claim that, with so many men being inducted, psychiatrists frequently can spend only a few minutes testing draftees. This is not enough time for a thorough examination and the doctor often has to make a snap judgment which may not properly take into consideration the draftee's nervousness and excitement. Thus, many are unfairly classified as deficient who, while far from brilliant, could pass the relatively simple army tests under more favorable circumstances.—*June 15, Periscope, News-Week.*

* * *

Members of The Lenawee County Medical Society were hosts to the officers of the Michigan State Medical Society at Adrian on Tuesday, May 19. Present representing the State Society were H. H Cummings, M.D., Ann Arbor, Presi-

dent-elect; A. S. Brunk, M.D., Detroit, Council Chairman; L. J. Johnson, M.D., Ann Arbor, Councilor of the Fourteenth District; L. Fernald Foster, M.D., Bay City, Secretary; J. S. DeTar, M.D., Milan, of the Public Relations Committee; and Wm. J. Burns, Lansing, Executive Secretary.

The meeting was conducted by Esli T. Morden, M.D., President of the Lenawee County Medical Society. Fifty members and guests were present.

* * *

The Wayne County Emergency Medical Service Chiefs held a meeting at the Wayne County Medical Society headquarters Sunday, May 24, prior to the Detroit blackout pratice. Present were John S. Coulter, M.D., of Chicago, Regional Medical officer of the Office of Civilian Defense, and L. H. Gaston, M.D., Lansing, Deputy Chief of Emergency Medical Services, Michigan Council of Defense; Grover C. Penberthy, M.D., and Bruce H. Douglas, M.D., Detroit, Chiefs of Emergency Medical Services; John H. Law, M.D., Detroit, James A. Bechtel, Executive Secretary of the Wayne County Medical Society and Wm. J. Burns, Executive Secretary of the Michigan State Medical Society.

* * *

The Institute on "Practice of Medicine in Total War," to be held as part of the MSMS Annual Meeting, Tuesday, September 22, 1942, Pantlind Hotel, Grand Rapids, will have the following interesting subjects on its program, beginning at 12 noon:

1. "How England Reacted to a War Brought Home"
2. "Nutritional Problems in Wartime"
3. "Civilian Morale in Time of War"
4. "The Modern Treatment of Civilian Injuries Incident to Warfare"
5. "The Infectious Disease Problem in Wartime."

The Institute will end with a question and answer period, open to all in attendance.

* * *

The Navy needs doctors and dentists. According to a release from Commander Emil J. Stein, senior medical officer of the Office of Naval Officer Procurement, recent rumors that the Navy is no longer accepting applications for commissions in the Medical and Dental Corps are entirely without foundation. The enlistment of thousands of men daily makes it imperative for the Navy to keep the fighting fleets and shore establishments supplied with doctors and dentists to maintain the high Navy health standards. Physicians and dentists from 21 to 50 years of age who can pass the physical and other requirements may apply for commissions. Applications may be made in person or mailed to the Office of Naval Officer Procurement, Board of Trade Building, Chicago.

Beware: "This proposition requires your full-time services away from your office. If you are willing to leave town, can offer you a definite guarantee of $50 per week and an opportunity to make much more refracting patients we recommend to you. Office space is provided. This is a permanent arrangement. Refraction experience is not necessary. Are you registered in any other state?"

The above paragraph comes to doctors in an unsolicited letter from an individual in Chicago. It is a "come-on" from an optical company whose activities have been the cause of investigation.

Toss such letters into the most convenient wastepaper basket. The communication is worthy only of such treatment.

* * *

Michigan Delegates to the American Medical Association Convention in Atlantic City were honored by the following appointments in the House of Delegates: Henry A. Luce, M.D., Detroit, was made a member of the Reference Committee on Legislation and Public Health; L. G. Christian, M.D., Lansing, was made a member of the Reference Committee on Sections and Section Work; and Frank E. Reeder, M.D., Flint, was appointed as Sergeant at Arms. T. K. Gruber, M.D., Eloise and C. R. Keyport, M.D., Grayling, were the other members representing the Michigan State Medical Society. Grover C. Penberthy, M.D., Detroit, represented the Section on Surgery, General and Abdominal; Jean Paul Pratt, M.D., Detroit, represented the Section on Obstetrics and Gynecology; and Burt R. Shurly, M.D., Detroit, was the representative of the Section on Laryngology, Otology and Rhinology.

* * *

Your Friends

U. S. Standard Products Company, Woodworth, Wisconsin.
Wall Chemicals Corporation, Detroit, Michigan.
Westinghouse X-Ray Company, Detroit, Michigan.
White Laboratories, Inc., Newark, New Jersey.
Winthrop Chemical Company, Inc., New York City.
John Wyeth & Brother, Inc., Philadelphia, Pennsylvania.
Zimmer Manufacturing Company, Warsaw, Indiana.

The above seven firms were exhibitors at the 1941 Convention of the Michigan State Medical Society and helped make possible for your enjoyment one of the outstanding state medical meetings in the country. Remember your friends when you have need of equipment, medical supplies, appliances or service.

Warning! A man came to a physician's office recently stating that he and his mother were visitors in the vicinity; that his mother was suffering with cancer of the stomach and needed ¼ grain of morphine three times daily. The physician insisted upon examining the mother (who did not accompany the man to the physician's office) before prescribing the drug and during the conversation inadvertently disclosed the information that he would be absent from the office from 4 to 6 p.m. Arrangements were made for the mother to visit the doctor at 7 p.m. However, while the physician was absent, his office was burglarized and a quantity of morphine as well as cash and stamps were taken. The man was approximately thirty-five to forty years of age, weight 150 pounds, about 5 feet, 8 inches tall with a slightly narrow face. Any physician who is approached by anyone resembling this man should immediately notify the Michigan State Police.

* * *

The June Bulletin of the Ingham County Medical Society published the following interesting notice:

Society Important to All Physicians

"Every qualified physician should unite with a County Medical Society: Because it attempts to maintain a program of scientific education for the members of the society keyed to the constantly developing discoveries in the field of medicine.

"Because of its purpose to coördinate the charitable activities of the members for the assistance of worthy, underpriviliged citizens.

"Because it unites the representative members of the medical profession, bringing due recognition through community interests, and undergirds effective programs for supplying in national emergencies the medical needs of our armed forces as well as medical care at home.

"Because of its program of educational service to the public on matters of health and hygiene.

"United effort obviously tends to overcome individual apathy and to stimulate one's activity in behalf of civic health and general welfare."

* * *

Michigan's Hospital Units Await New Call

The Seventeenth General Hospital (Harper Hospital, Detroit) Unit under the command of Colonel Henry R. Carstens, M.C., and the Two-Hundred and Ninety-Eighth General Hospital (University of Michigan, Ann Arbor) Unit, under the command of Colonel W. G. Maddock, M.C., received a warning notice from the Army in June that it could expect a call to active duty on or after July 15 and June 27, respectively.

Thus two of the three General Hospitals of Michigan will soon be on the move. The third, the Thirty-Sixth General Hospital (Wayne Uni-

versity, Detroit) under the command of Colonel W. C. C. Cole, M.C., is still being organized and will undoubtedly be ordered into action in the near future.

The August JOURNAL will contain a list of the medical officers connected with the three General Hospital Units of Michigan.

* * *

Location and owners of adult cabinet type respirators throughout Michigan are listed below by courtesy of the National Foundation for Infantile Paralysis. Keep this list for handy reference in case of emergency.

Ann Arbor (*Washtenaw*)	University Hospital ....(2)
Battle Creek (*Calhoun*)	Community Hospital Leila Y. Post Montgomery Hospital
Benton Harbor (*Berrien*)	Mercy Hospital
Cadillac (*Wexford*)	Mercy Hospital
Dearborn (*Wayne*)	Junior Chamber of Com.
Detroit (*Wayne*)	Children's Hospital Herman Kiefer Hospital .....(3)
Eloise (*Wayne*)	Wayne County Superintendent of Poor
Flint (*Genesee*)	Hurley Hospital
Grand Rapids (*Kent*)	Blodgett Memorial Hosp. Butterworth Hospital
Hancock (*Houghton*)	St. Joseph's Hospital
Iron Mountain (*Dickinson*)	Iron Mountain Gen. Hosp.
Ironwood (*Gogebic*)	Grand View Hospital
Jackson (*Jackson*)	W. A. Foote Memorial Hosp. Jackson County Sanatorium
Kalamazoo (*Kalamazoo*)	Borgess Hospital (Owned by Kalamazoo County Chapter of The National Foundation)
Lansing (*Ingham*)	American Legion Edward W. Sparrow Hosp. Lansing City Hospital
Marquette (*Marquette*)	Michigan Children's Clinic St. Luke's Hospital.....(4) (1 Owned by Chicago & North-Western Rwy Co.) (1 owned by Marquette County Chapter of The National Foundation)
Mason (*Ingham*)	Ingham County Health Department
Muskegon (*Muskegon*)	Veterans of Foreign Wars
Paw Paw (*Van Buren*)	Van Buren County Supervisors
Pontiac (*Oakland*)	Oakland County Contagious Hospital
Port Huron (*Saint Clair*)	Port Huron Hospital
Saginaw (*Saginaw*)	Saginaw County Hospital
Traverse City (*Grand Traverse*)	James Decker Munson Hospital

* * *

SUPPLEMENTARY ROSTER

The following members were certified to the Executive Office of the Michigan State Medical Society after the Roster which appeared in the June issue of THE JOURNAL was sent to the press:

Bay-Arenac-Iosco

Pearson, Stanley M.....Bay City

Berrien

Anderson, H. B.....Watervliet
Leva, J. B.....Benton Harbor

Calhoun

Bonifer, Philip P.....Battle Creek
Hansen, E. L.....Battle Creek
Hoyt, Aura A.....Battle Creek
Robbert, John .....Climax
Whyte, Bruce .....Battle Creek

Delta-Schoolcraft

Diamond, J. A.....Gladstone

Eaton

Lawther, John.....Ann Arbor

Genesee

Dodds, Frederick E.....Flint
Drewyer, Glen E.....Highland Park, Ill.
Eichhorn, Ernest M.....Flint
Gutow, Isadore .....Flint
Harper, Alexander W.....Flint
Hawkins, James E.....Flint
Johnson, Arthur H.....Flint
Johnson, Frank D.....Flint
Smith, D. C.....Flint
Sutherland, James K.....Flint
Walden, Coburn E.....Howell

Grand Traverse-Leelanau-Benzie

Hyslop, William T.....Traverse City
Willard, William T.....Benzonia

Jackson

Adams, Dewitt C.....Jackson
Lewis, E. F.....Jackson
Munro, C. D.....Jackson
Wilson, E. G.....Jackson
Winter, G. E.....Jackson
Young, Roland P.....Casapalco, Peru

Kent

Failing, J. F.....Grand Rapids
Smith, Edwin M.....Grand Rapids
Vann, Norman .....Grand Rapids
Wiggers, J. R.....Grand Rapids
Winter, Garret E.....Grand Rapids

Lenawee

Growt, Bowers H.....Addison

Mason

Davis, R. A.....Ludington

Northern Michigan

Benson, A. A.....Mancelona
Duffie, Don Hastings.....Central Lake
McCarroll, James C.....Cheboygan
Winter, Joseph A.....Cheboygan

Oakland

Arnkoff, Harry .....Pontiac
McEvoy, F. J.....Royal Oak
Shadley, Maxwell .....Pontiac

St. Joseph

Pennington, Harry .....White Pigeon

Washtenaw

Crabtree, Peter .....Ann Arbor
Cummings, Robert Howard.....Ann Arbor
DeAlvarez-Skinner, Russell R.....Ann Arbor
Northway, Robert O.....Ann Arbor

Wayne

Altshuler, Abraham M.....Detroit
Burnham, Frederick V.....Detroit
Caughey, Edgar H.....Detroit
Colvin, Leslie T.....Detroit
Cotton, Schuyler O.....Detroit
Fallis, Lawrence S.....Detroit
Gamble, Parker B.....Detroit

Gehring, Harold W. ..... Detroit
Goldberg, Harry H. ..... Detroit
Graff, J. M. ..... Detroit
Gramley, William ..... Detroit
Griffith, Arthur J. ..... Detroit
Gurman, Ben George ..... Detroit
Harris, Albert E. ..... Detroit
Howlett, Howard T. ..... Detroit
La Bine, Alfred C. ..... Detroit
Lamberson, Frank ..... Detroit
Lawrence, William C. ..... Detroit
Levitt, Nathan ..... Detroit
Malina, Stephen ..... Eloise
Manning, Morey H. ..... Detroit
Martin, J. B. ..... Detroit
Mead, John ..... Detroit
Noth, Paul H. ..... Grosse Pointe
Pearman, Charles L. ..... Detroit
Pierson, Max J. ..... Detroit
Ross, Worth ..... Detroit
Schillinger, Harold K. ..... Dearborn
Sieber, Edward H. ..... Dearborn
Smith, Charles E. ..... Detroit
Straith, Claire L. ..... Detroit
Stubbs, Harold W. ..... Detroit
Tasker, Helen ..... Detroit
Truskowski, Edward G. ..... Hamtranck
Wittenberg, Arthur A. ..... Detroit

Wexford-Missaukee

Lommen, Ralph ..... Manton

HAS IT COME TO THIS?

Citing five instances of Japanese attempts to spread dread diseases among the Chinese population, P. Z. King, M.D., director of the Chinese National Health Administration charged that the Japanese were using the Chinese people as guinea pigs to test the effectiveness of bacteriological warfare. He concludes:

"The enumeration of facts thus far collected leads to the conclusion that the Japanese Army has attempted bacterial warfare in China. Fortunately, the mode of infection and the method of control of plague are known. Our difficulty at present is the shortage of the anti-epidemic supplies required. New drugs, more or less effective for the treatment of plague cases, sulfathiazole and allied sulphonamide compounds, China cannot as yet produce herself.

"For prevention, plague vaccine can be produced in considerable quantities here, provided the raw materials required for vaccine production are available. Rat-proofing of all buildings and eradication of rats are fundamental control measures, but under war conditions they cannot be satisfactorily carried out.

"If rat poisons such as cyanogas and barium carbonate can be obtained from abroad in large quantities, deratization campaigns may be launched in cities where rats are a menace."—*United China Relief News Bulletin.*

LETTER TO THE EDITOR

June 23, 1942

Editor, Journal MSMS,
Muskegon, Michigan

Dear Sir:

These days of federal rationing and priority of all scarce or limited articles has deeply impressed me with the possibility that our "country fathers" in Washington, D. C., might soon think of rationing and redistributing the doctors; particularly if we on our own accord are not providing a safety valve in some form or shape, to forestall too much accumulation of discontent in our very outspoken citizenry.

Our constantly diminishing ranks of physicians due to army needs, no doubt will leave many areas of our State rather poorly supplied with competent medical aid. The experience of the last war with its fury of the influenza epidemics is still fresh in our minds and a repetition of such an experience we should energetically try to forestall.

Today the public seems a lot less modest in their demands than twenty-five years ago and if sufficient evidence of inadequate distribution of doctors is presented at Washington we will soon find out that our democracy can apply quite aptly dictatorial practices in regard to us.

Would it not be expedient to create a clearing house of our own, whereby a redistribution of doctors on a voluntary basis could be fostered and in such a way forestall a mandatory degree in possible military fashion, as another so-called "emergency measure?"

We have managed quite well to avoid the threatening induction of State medicine during the depression years; can we not look far enough ahead into the future to save us the anxiety of another similar threat to our cherished individualism, and personal liberty.

Surely we should have the intellects to find the proper solution. May I herewith agitate some action and possibly help to follow it through, efficiently and in good time; not in the regretable military manner of 1940 and '41 by "too little and too late."

Very sincerely,
CARL R. ZOLLIKER.

CLASSIFIED ADVERTISING

FOR THE DURATION—Retired physician will consider carrying on practice of Michigan physician in the service, where office and living quarters are modern. Reply Box 15, 2020 Olds Tower, Lansing, Michigan.

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.

ENDOCRINOLOGY. Clinical Application and Treatment. By August A. Werner, M.D., F.A.C.P., Assistant Professor of Internal Medicine, St. Louis University School of Medicine; Associate Physician, St. Mary's Group of Hospitals; Physician Endocrine Clinic, Desloge Hospital and the Missouri State Hospital No. 4, Farmington, Mo. Second Edition, thoroughly revised. Philadelphia: Lea & Febiger, 1942. Price: $10.00.

This is the second much enlarged and almost entirely rewritten edition of a work on this rapidly advancing science. It is well illustrated. Well selected case reports and diagrams aid in making clear this intricate division of medicine. The material is exceptionally complete. The typography is excellent. It is recommended as a reference or textbook.

* * *

HUGHES' PRACTICE OF MEDICINE. Revised and Edited by Burgess Gordon, M. D., Clinical Professor of Medicine, Jefferson Medical College; Director and Physician-in-Charge, Department for Diseases of the Chest, Jefferson Hospital; Assistant Physician, Jefferson Hospital; Physician, Pennsylvania Hospital; Visiting Physician, the White Haven Sanatorium; Consultant in Tuberculosis, Philadelphia State Hospital; Consulting Physician, Frederick Douglass Memorial Hospital; Lieutenant Colonel, Medical Reserve, Base Hospital No. 38. Sixteenth Edition. Philadelphia: The Blakiston Company, 1942. Price: $5.75.

This is the sixteenth edition. It has been revised and edited by Burgess Gordon with the collaboration of several specialists. In a volume of 791 pages almost every field of medicine has been covered. Its approach is decidedly practical and therapy is emphasized. The typography is excellent, the type is rather small but clear and distinct, enabling compilation of a vast amount of material in one volume. It is recommended as a reference book to any general practitioner.

* * *

BUILDING MORALE. By Jay B. Nash, Ph.D., Chairman of Department of Physical Education and Health, School of Education, New York University. New York: A. S. Barnes and Company, 1942. Price: $1.00.

"Morale wins wars, wins games on the athletic field, conquers the wilderness, carries us over crises and gives nations vitality to face and solve problems." Dr. Nash goes on saying morale by itself has no significance, but morale for a purpose is the all-important spirit that makes for victories. From there on the various principles and methods of building morale are delineated. A book well worth reading.

* * *

A CLINICAL GUIDE. By the Medical Research Division, The Schering Corporation, 1941.

The Schering Medical Research Division has compiled the available material on sex hormone therapy. The subject matter is well organized and practical in nature. The small books represent easily available source of information of this subject.

A TEXTBOOK OF SURGERY. By American Authors. Edited by Frederick Christopher, B.S., M.D., F.A.C.S., Associate Professor of Surgery, Northwestern University Medical School, Chief Surgeon, Evanston (Illinois) Hospital. With 1,538 illustrations on 771 figures. Third Edition, Completely Revised and Reset. Philadelphia and London: W. B. Saunders Company, 1942. Price: $10.00.

This is the third edition of this well-known text first published in 1936. It has an imposing list of contributors. A new section on war injuries has been included under the direction of Robert I. Harris of Toronto. It is profusely illustrated and well arranged for ready reference. The typography is good and it is recommended as a text or reference.

* * *

THE BOND BETWEEN US. The Third Component. By Frederic Loomis, M.D., Diplomate of the American Board of Obstetrics and Gynecology. New York: Alfred A. Knopf, 1942. Price: $2.50.

The author of "Consultation Room" has written a fascinating group of experiences illustrating the third component of life—the human relationship. It is a book of sheer drama which will interest the physician even though written for the layman. You may well recommend this volume to your interested patients.

* * *

INTERNAL MEDICINE IN OLD AGE. By Albert Mueller-Deham, M.D., Associate Visiting Physician, Welfare Hospital for Chronic Disease (Second Division), Department of Hospitals, New York City; formerly Clinical Professor of Internal Medicine, University of Vienna Medical School, and Chief of Medical Division, Municipal Hospital for Chronic Disease, Vienna; and S. Milton Rabson, M.D., Assistant Professor of Pathology, New York Post-Graduate Medical School, Columbia University (on leave); Lieutenant Commander, United States Naval Reserve. A William Wood Book. Baltimore: The Williams & Wilkins Company, 1942. Price: $5.00.

The material is based for the most part on the personal observation of many old patients at the bedside and at necropsy, by these authors who have had a particular interest in this subject for many years. Under specific chapter headings it deals with the common ailments which present a problem in the patient of advanced years. The material is well presented and unusually practical. The typography is good. The volume is not illustrated. It is recommended to any advanced general practitioner.

Reading Notices

POLLEN COUNTING INFORMATION

Throughout the state of Michigan, including the Upper Peninsula, there have been repeated requests for pollen counting information not only for the current year but also for many years previous. The Barry Allergy Laboratories have compiled over the last ten years, pollen counting data; and for the last five years, fungi counting data as well; the information being released in many instances through the newspapers and radio stations to facilitate immediate widespread knowledge of daily counts. This survey is again to be conducted this year, not only for the months of August and September, but also for May, June and July and it will be a pleasure to submit without obligation, any data required, to any member of the Michigan State Medical Society.

This information is generally used in determining possible causative factors of patients' conditions, as well as a guide in interpreting patient's symptoms as to whether they were due to a dosage or to irritants in the outside atmosphere. A postcard request will be honored immediately if mailed to the executive offices of the Michigan State Medical Society or directly to the Barry Allergy Laboratories, Detroit, Michigan.

INTOLERANCE TO DIETHYLSTILBESTROL

Nausea and vomiting have been the most frequent side-effects following administration of Stilbesterol (diethylstilbestrol). A recent report (*Jour. A.M.A.*, 119:400, May 30, 1942) points out that there is a definite relation between these symptoms and the nausea and vomiting of early pregnancy. If one will merely take the time to ask the prospective patient if she had nausea and vomiting with a previous pregnancy, it would serve as a warning to give not over 0.25 mg. daily as an initial dose. Desensitization may be accomplished by giving 0.1 mg. tablets once daily for five days, then increasing the dose gradually until the therapeutic level is reached. Diethylstilbestrol, Lilly (formerly known as Stilbestrol) is available in 0.1 mg. tablets, as well as in larger doses, for oral administration.

SUMMER DIARRHEA IN BABIES

Casec (calcium caseinate), which is almost wholly a combination of protein and calcium, offers a quickly effective method of treating all types of diarrhea, both in bottle-fed and breast-fed infants. For the former, the carbohydrate is temporarily omitted from the 24-hour formula and replaced with 8 level tablespoonfuls of Casec. Within a day or two the diarrhea will usually be arrested, and carbohydrate in the form of Dextri-Maltose may safely be added to the formula and the Casec gradually eliminated. Three to six teaspoonfuls of a thin paste of Casec and water, given before each nursing, is well indicated for loose stools in breast-fed babies.

Please send for samples to Mead Johnson & Company, Evansville, Indiana.

Timely Hints on Immunization . . .

Diphtheria Toxoids **Lederle**
Smallpox Vaccine **Lederle**

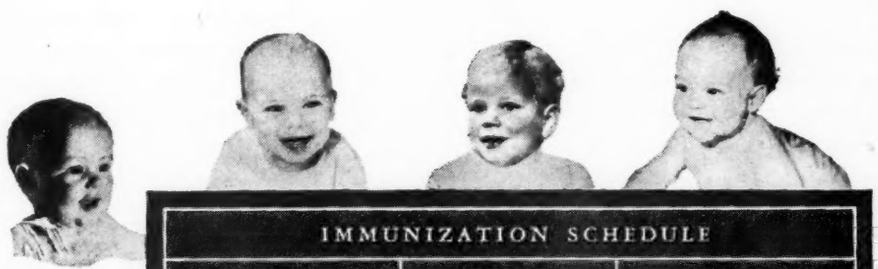
COOPERATING WITH THE NATIONAL PLAN of having all children over six months of age immunized against diphtheria and smallpox, public health authorities of several states are undertaking intensive drives of their own to secure the protection of a maximum number of children from these infectious scourges of childhood.

Statistics† show that there was an increase of over 1,200 cases of diphtheria in the country in 1941 over the number reported for 1940. The median for the five preceding years was almost twice the number for 1940. Let us not lose valuable ground gained—the upward trend in the incidence of diphtheria must not continue in 1942!

The method of diphtheria immunization most generally favored at present is 2 doses of alum precipitated toxoid or 3 doses of plain toxoid. In addition, the Department of Health of New York City has adopted the plan of urging that a single supplemental dose of 1 cc. of plain toxoid be given shortly before entering school to all children who have previously been immunized during infancy.

Smallpox incidence in 1941 reached a new low,† and public health authorities and practitioners should be proud of this attainment! However, 1,368 cases of smallpox were reported in 1941. Since this is a preventable disease, it is obvious that the goal has not yet been reached.

†Pub. Health Rep. 57:23,24 (Jan. 2) 1942.



IMMUNIZATION SCHEDULE		
Immunization should be carried out against:	LEDERLE PRODUCT	TIME
Smallpox	Smallpox Vaccine*	6-12 months (revaccinate at 6 and 12 years)
Diphtheria	Diphtheria Toxoids*	6-12 months (Schick Test at 6 years—reimmunize if necessary)
Rabies	Rabies Vaccine*	Promptly after exposure
Immunization is recommended against:	LEDERLE PRODUCT	TIME
Scarlet Fever	Scarlet Fever Streptococcus Toxin*	After 18 months
Measles	Immune Globulin*	After exposure
Tetanus	Tetanus Toxoid*	Before probable exposure

PACKAGES

"DIPHTHERIA TOXOID *Lederle*" (Plain)
1 and 10 immunizations

"DIPHTHERIA TOXOID *Lederle*" (Refined Alum Precipitated)
1, 5 and 10 immunizations

"SMALLPOX VACCINE *Lederle*" (U. S. P.)
1, 5 and 10 immunizations

"SMALLPOX VACCINE *Lederle*" (Preserved with Brilliant Green)
1, 5 and 10 immunizations

Pocket-size card, showing Lederle's Immunization Schedule and Chart of Vitamin requirements, on request.

*Accepted by Council on Pharmacy and Chemistry of the American Medical Association.

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LEDERLE LABORATORIES, INC., 30 Rockefeller Plaza, New York, N. Y.

✶ HALF A CENTURY AGO ✶

DIPHTHERIA—THE REPORT OF CASES*

D. E. WELSH, M.D.

Grand Rapids, Michigan

Mr. Chairman and Gentlemen: I present for your consideration a subject which is an all important one, and one with which nearly every one of us has had more or less experience. At times, a remedy advanced and used has been proven to possess most gratifying results. Again, failures occur, and we seek new fields to find remedies to combat this so dreaded a disease.

The object of this paper is not to enter into the discussion of the theory or the cause of this disease, but to report a prescribed plan followed out in the treatment of an epidemic occurring in my practice. This outbreak occurred in the St. John's Orphan Asylum, located in the city of Grand Rapids.

The Asylum is a charitable institution, under the control of the Sisters of Charity, and located on East Leonard street, in the northwestern part of the city, on elevated ground, which commands a good view of the major portion of our city; it is isolated from all surrounding buildings, its nearest neighbor being a ward schoolhouse, located five hundred feet southeast of it. The building has been occupied only for the past three years; it is modern in its improvement, being four stories high, heated by steam, with water and closets and baths on second and third floors, and sewer connection with the Leonard street sewer, which is a main trunk sewer and only built about one and one-half years, and located over one hundred feet from the building. The cellar has cemented floor and sides, used for play room in wet weather and for laundry purposes. The sleeping rooms are very large, the dimensions being:

First floor—29 feet x 44 feet x 11 feet.
Second floor—26 feet x 45 feet x 11 feet.
Third floor—17 feet x 35 feet x 11 feet.
Fourth floor—50 feet x 35 feet x 11 feet.
Fourth floor—22 feet x 34 feet x 11 feet.

Hospital Room

Second floor, 17 feet x 35 feet x 11 feet.

These rooms have never been occupied except as herein stated.

At the time of the outbreak of the disease, the inmates of the asylum numbered seventy-two children, varying in ages from three to fifteen years, and under the guardianship of eight or ten sisters. The source of infection can be traced only in this manner: a child was brought to the institution for admission, in the evening, when, on careful examination, which is always done, it was learned that the child came from a location in the city in which there had existed diphtheria, and that inmates of the same house in which she had lived had died of the disease, ten days or two weeks previously, this child also having had it, as was stated, several weeks, but had not been very sick; she was then ordered home, and in ten days following the first case made its appearance, August 17, 1891.

I was called in consultation by my friend, Dr. C. M. Kelley, who was in charge, one week after the development of the disease, and found three cases existing, one having died that day, and one dying the same evening. The plan of treatment adopted suggested itself, having had several other cases with Dr. S. R. Wooster, of this city, who also visited this institution with me. The children having already been isolated and placed in the room set apart for hospital purposes, it was then suggested that they be removed to the large room in the fourth story, the dimensions being 50 x 55 x 11.

This room faces the east and west, and good ventilation and sunlight could be obtained. No furniture was allowed in the room, save beds and bedding and several chairs for the nurse. This room was placed in charge of one of the sisters, who remained until the disease had abated. When the disease was at its height, she was assisted by the older patients and another nurse, who remained entirely in this room.

These children were each supplied with individual spoons, two towels, clothes and wash ba-

*Presented at the Twenty-seventh Annual Meeting of the M.S.M.S. held in Flint in May, 1892.

sin, and receptacles for spitting and throwing the clothes in after using, which were immediately burned. Our attention was then drawn to the remaining children, and they were examined individually and carefully, and as soon as the slightest patch or inflammatory condition was shown, they were removed to the room used for hospital purposes, the size being 17 x 35 x 11, and when the patch fully developed they were removed to the fourth floor. As soon as a child was taken to the third floor, it was given its own spoon, cup, and basin, etc., and when removed to the fourth floor, they were taken with them, thus preventing, or attempting, if possible, to avoid infection in every manner. The children were examined four times daily, either by Dr. Kelley or myself, and at each examination some would be transferred.

As soon as the condition of any of the patients in the fourth story assumed severe malignancy, they were removed to another room across an entry six feet wide, the dimensions of that room being 22 x 34 x 11, facing the northwest and west. All admitted to this room died, with one exception.

Those that died were buried as soon as possible; if dying in the morning, they were buried the same evening; if at noon, that evening; if at night, the following evening; the first patient dying August 21, 1891; the last patient dying October 16, 1891.

As soon as convalescence was declared in any of the cases, the patients were removed to the third floor room and remained for two weeks before they were allowed to leave the room, when they were taken downstairs in charge of the nurse, who remained constantly with them in the room, and allowed to play on the north side of building, where they would not commingle with any of the other children, thus preventing infection.

After the outbreak was over, all the clothing worn by the nurses and children, and bedding, was fumigated with sulphur, then aired and washed in chlorinated soda water; the vessels used by the children were disinfected with chlorinated lime, and the building thoroughly disinfected with sulphur at different times.

I can but state the age of the patients and duration of the disease, except in those whose case had something beyond the ordinary:

Name	*Age*	*Duration*
John S.	11	8 days
William L.	12	8 days
William H.	7	8 days
John C.	7	8 days
Mamie S.	8	8 days
Herbert G.	6	8 days
Joseph V.	7	8 days
Mary F.	13	8 days
Kate M.	13	8 days
Katie F.	14	8 days
Mary S.	12	8 days
Maggie O.	11	8 days
Annie O.	7	2 weeks
Francis E.	5	2 weeks
Edward L.	6	2 weeks
Christian P.	6	2 weeks
Eugene G.	7	2 weeks
Fannie L.	9	2 weeks
Roy G.	6	2 weeks
Mary H.	5	2 weeks
Retie K.	4	2 weeks
Katie H.	7	2 weeks
Lizzie M.	10	2 weeks
Mary M.	7	2 weeks
Edith S.	9	2 weeks
Leo G.	10	3 weeks
Ray T.	8	3 weeks
George D.	6	3 weeks
Terressa R.	6	3 weeks
Lizzie O.	5	3 weeks
Maud H.	8	3 weeks
Pearl P.	5	3 weeks
Annie O.	7	4 weeks
Katie M.	5	4 weeks
Sarah H.	6	8 weeks

These were all typical cases, there being tonsillar, palatine, and pharyngeal involvement, with the exception as hereinafter stated. Ten patients, or 21.7 per cent, suffered from antero and postnasal involvement. Five patients, or 10.8 per cent, suffered from epistaxis; in some cases it was severe, requiring the plugging of the anterior nares, while in others it was easily controlled by hot water injections, or astringent alum water. This epistaxis was due to picking of the nose, which was almost impossible to prevent. Ten patients, or 21.7 per cent, had laryngeal symptoms present themselves at different times of the disease. Six patients, or 13.04 per cent, had a recurrence of the patches in the throat, and were sent from the second to the third floor for treatment. Six died, or 13.04 per cent of this number, three having died prior to the use of the following plan, thus making 8.7 per cent death rate by it. Those dying suffered from severe laryngeal,

nasal, and post-nasal involvement and sepsis, their ages being:

Name	*Age*	*Duration*
Anna S.	11	4 days
Alice M.	11	2 weeks
Lizzie S.	6	4 days
Frankie R.	4	5 days
Martha L.	4	2 weeks
S ——	21	10 days

The plan of treatment adopted was simple, and the results can only be attributed to their careful nursing and training, in this, that an application having to be made, it was submitted to readily.

Each patient was required to drink three mugs of milk daily; one to two grains of quinine was given three times daily, according to the age of the patient. Three to five drops of tr. ferri chlor., in one or two drachms of whisky, four times daily, according to age. The throat was penciled four times daily, either by myself or Dr. Kelley, with the full strength of sulpho-calcine, prepared by Reed & Carnick, of New York, and in the interval they used a gargle of a 10 per cent solution of sulpho-calcine. For the nasal involvement, a pledget of cotton was wound on a cotton-holder, and this passed into the nares as often as the throat was penciled.

I cannot speak too highly of this preparation of sulpho-calcine. While the first application of the same is very disagreeable to the little sufferer, and, as a rule, causes them to vomit, they soon become accustomed to its use, and the relief afforded them, they soon learn, repays them for its being disagreeable.

Other cases occurring in private practice could be mentioned as being treated successfully with this remedy, but suffice that by this plan, the percentage of deaths is decreased, and I submit its use for your consideration, knowing the good results I have obtained, can be obtained also by you.

REMEDY FOR PREMATURE BIRTHS

In a cheap, 30-year-old medicine, the University of Illinois medical college has discovered a potent remedy for premature births, reports the Wide World syndicate. The medicine is a hormone extract from sows and costs about 40c a tubeful, compared with $1.25 for the premature birth remedy usually employed. Used in Cook County Hospital on 300 cases of threatened premature births, the cheap extract is said to have saved 80% of the babies, while in 50 cases not given the remedy 60% of the mothers lost their babies. Moreover says the article, the medicine has stopped premature labor and has helped to control hemorrhages.

—— War Bulletins ——

Paul McNutt's Atlantic City Talk

Paul V. McNutt, chairman of the War Manpower Commission, addressed the AMA House of Delegates in Atlantic City, June 8, on "The Procurement of Physicians." Extracts from this talk, as taken from a special statement for JAMA, follow:

"On June 8 I described to the American Medical Association at its Atlantic City meeting the acute need for physicians for the military services. I pointed out how far the recruitment of physicians lagged behind expected quotas. In conclusion I stated bluntly the fact, which could not have been evaded by any analysis, that unless voluntary recruitment progressed more rapidly some more rigorous form of selective service must be resorted to . . . .

"Those facts were necessary in order to permit the medical profession to diagnose its own case. And the case is urgent; physicians are members of what is probably the most indispensable of all professions. Despite the harshness of the facts and the bluntness with which I had to state them, I felt that the profession should be informed . . . .

"We need more than twenty thousand additional physicians by the end of this year. But eight states—New York, Illinois, California, Pennsylvania, Massachusetts, New Jersey, Michigan and Ohio—should account for nearly sixteen thousand of that shortage . . . .

"By contrast, sixteen states have fewer than a hundred physicians to go to reach the total number they should supply . . . .

"We must not underestimate the serious drain this puts on available medical services in civilian communities. It will mean long hours and hard work—sacrifices which will multiply the deep debt that every community owes to its physicians . . . .

"The individual physician has not realized the genuine urgency of the need. Measures must be taken which will bring those home to every individual. This means that there will have to be some education of the general public. Preventable illness must be reduced to a minimum. Unreasonable demands on the physician's time must be reduced to a minimum. Thus only may available medical service adequately cover the needs."

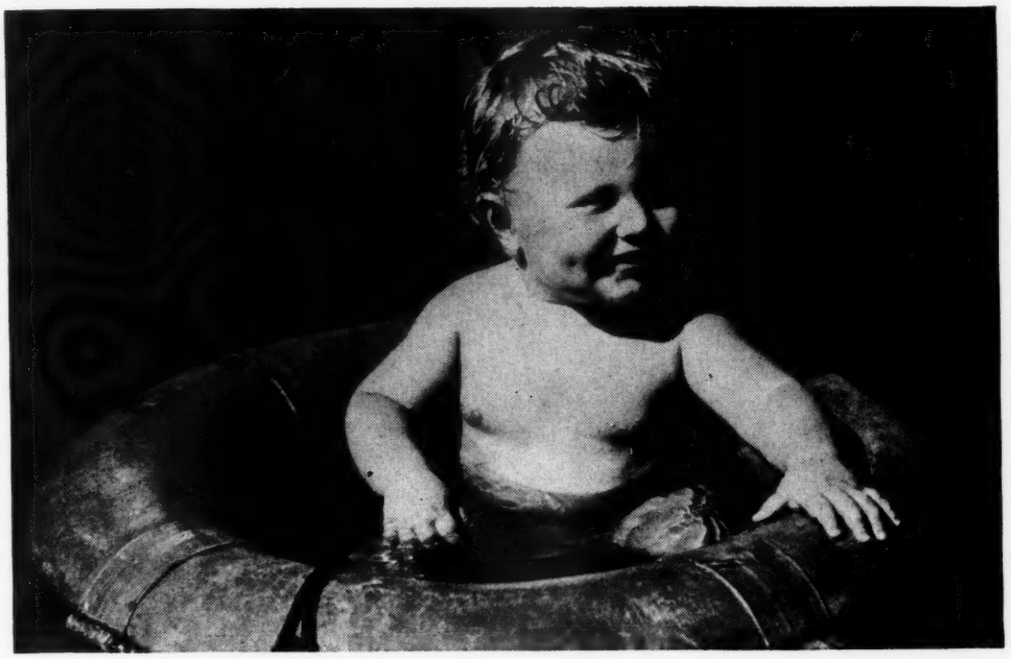
COUNTY SOCIETY MEETINGS

Berrien—Niles—Wednesday, July 22, 1942—Program by the Michigan Tuberculosis Association.

Genesee—Flint—Wednesday, June 17, 1942—Annual Hurley Hospital Alumni Stag Day with golf and dinner at the Atlas Valley Country Club.

Kent—Grand Rapids—Thursday, June 18, 1942—Annual Doctor-Lawyer Picnic at the Kent Country Club.

Oakland—Harry Pool Farm—Wednesday, July 1, 1942—Annual Summer Frolic.



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★ ★ ★

Biolac is prepared from whole milk, skim milk, lactose, vitamin B_1, concentrate of vitamins A and D from cod liver oil, and ferric citrate. It is evaporated, homogenized, and sterilized.

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MICHIGAN MILITARY MEMBERS

Following is a list of Michigan doctors of medicine who have recently been commissioned in the Army or Navy of the United States, showing their rank and home address. Military addresses have not been given for obvious reasons. Additions or corrections to the list will be welcomed. Please mail any changes or additions to the Executive Office, 2020 Olds Tower, Lansing, Michigan. A supplementary list of those commissioned will be published in a future issue of THE JOURNAL.

Allegan County—Wilbur E. Dolfin, 1st Lt., Wayland.

Alpena-Alcona-Presque Isle Counties—Samuel H. Rutledge, Jr., 1st Lt., Rogers City.

Bay-Arenac-Iosco Counties—Samuel F. Horowitz, 1st Lt., Bay City; Howard T. Knobloch, Capt., Bay City; Walter R McDonnell, 1st Lt., Pinconning; Michael J. Medvezky, 1st Lt., Bay City; Dwight J. Mosier, Capt., Bay City; Stanley M. Pearson, 1st Lt., Bay City; R. B. Riley, 1st Lt., Bay City.

Berrien County—John G. Ruth, Capt., Benton Harbor.

Calhoun County—James E. Forsyth, Capt., Albion; F. L. Graubner, 1st Lt., Marshall; Tyre K. Jones, Capt. Marshall; Lawrence A. LaPorte, 1st Lt., Battle Creek; Donald B. Morrison, Capt., Tekonsha; Clifford B. Taylor, Capt., Albion.

Cass County—John K. Hickman, Capt., Dowagiac.

Chippewa-Mackinac Counties—Wm. G. Birch, 1st Lt., Sault Ste Marie.

Eaton County—B. Philip Brown, Capt., Charlotte; D. S. Carothers, 1st Lt., Charlotte; E. F. Imthum, Capt., Grand Ledge.

Genesee County—Chester H. Adams, Capt., Grand Blanc; Nelson A. C. Andrews, Capt., Flushing; Geo. E. Anthony, Capt., Flint; Lawrence G. Bateman, 1st Lt., Flint; Henry K. Baker, 1st Lt., Flint; Robert M. Bradley, Capt., Flint; Wm. W. Bruce, 1st Lt., Swartz Creek; Geo. V. Conover, Lt. Commander, Flint; Glenn E. Drewer, Lt. (s.g.), Flint; Maynard Farhat, Capt., Flint; Theo. Finkelstein, 1st Lt., Flint; Harvey T. Fuller, Capt., Mt. Morris; Edwin F. Gray, Capt., Flint; Julius J. Gutow, 1st Lt., Flint; Harold H. Hiscock, Lt. Commander, Flint; Robert A. Huber, 1st Lt., Flint; Frank D. Johnson, Major, Flint; Edward Kaleta, 1st Lt., Flint; Lewis D. Kaufman, 1st Lt., Flint; Reuben H. McArthur, 1st Lt., Clio; Richard L. Rapport, 1st Lt., Flint; Charles J. Scavarda, Capt., Flint; Maurice J. Smith, 1st Lt., Flint; Carvey G. Walcott, Lt. (s.g.), Fenton; Gordon L. Willoughby, Capt., Flint.

Grand Traverse-Leelanau-Benzie Counties—Franklin R. Black, 1st Lt., Traverse City.

Hillsdale County—A. A. Sandor, 1st Lt., Hillsdale.

Ingham County—Wm. E. Clark, 1st Lt., Mason; Geo. R. Clinton, 1st Lt., Mason; Donald J. Drolett, 1st Lt., Lansing; Lawrence A. Drolett, 1st Lt., Lansing; J. F. Harrold, Capt., Lansing; Gordon H. Heald, 1st Lt., Lansing; Wm. H. Kelly, Capt., Lansing; Robert J. Mc. Gillicuddy, Capt., Lansing; Irving E. Silverman, 1st Lt., Lansing; Ralph H. Silverman, 1st Lt., Lansing; Ralph H. Sullivan, Jr., 1st Lt., Lansing.

Ionia-Montcalm Counties—Victor F. Kling, 1st Lt., Ionia; Milton E. Slagh, 1st Lt., Saranac; Jacob Van Loo, 1st Lt., Belding.

Jackson County—F. W. Bartholic, Capt., Jackson; Edward P. Cawley, 1st Lt., Jackson; J. M. Edmonds, Capt., Horton; R. J. Hanna, Major, Jackson; John B. Holst, 1st Lt., Jackson; Edward C. Lake, 1st Lt., Jackson; J. E. Ludwick, Lt. Commander, Jackson; Herbert B. McLauthlin, 1st Lt., Jackson; Robert J. Meade, 1st Lt., Jackson; J. L. Miller, 1st Lt., Jackson; Bernard M. Murphy, Capt., Jackson; Edward G. Seybold, 1st Lt., Jackson; Alfred M. Sirhal, 1st Lt., Brooklyn; W. A. Southwick, 1st Lt., Jackson; Sam Sugar, 1st Lt., Jackson; Myron V. Susskind, Capt., Jackson; Cecil E. Tate, 1st Lt., Jackson; Frederick I. Van Wagnen, 1st Lt., Jackson; Edward E. Vivirski, 1st Lt., Jackson.

Kalamazoo County—Walter E. Chase, 1st Lt., Kalamazoo; Kenneth L. Crawford, Capt., Kalamazoo; B. J. Dowd, 1st Lt., Kalamazoo; Paul M. Fuller, Capt., Kalamazoo; Howard Jackson, Lt. (s.g.), Kalamazoo; Wm. R. Kavanaugh, 1st Lt., Kalamazoo; Harold A. Machin, 1st Lt., Kalamazoo; Don Marshall, Major, Kalamazoo; Milton Okun, 1st Lt., Kalamazoo; Ralph Shook, Capt., Kalamazoo; Maynard Southworth, 1st Lt., Schoolcraft; M. B. Sofen, 1st Lt., Kalamazoo; Martin Verhage, 1st Lt., Kalamazoo; John Volderauer, Capt., Kalamazoo.

Kent County—Gordon W. Balyeat, Lt. (j.g.), Grand Rapids; Fred C. Brace, 1st Lt., Grand Rapids; Oliver R. Buesing, 1st Lt., Grand Rapids; Wm. J. Cosgrove, Capt., Grand Rapids; Clarence J. DeBoer, 1st Lt., Grand Rapids; Guy Wm. DeBoer, Capt., Grand Rapids; Kenneth E. Fellows, Capt., Grand Rapids; Wm. Haeck, 1st Lt., Grand Rapids; M. J. Holdsworth, Capt., Grand Rapids; Fred M. Jameson, 1st Lt., Grand Rapids; J. Duane Miller, Lt. Commander, Grand Rapids; Harold C. Mitchell, Major, Grand Rapids; Richard Mouw, 1st Lt., Grandville; Edward Y. Postma, 1st Lt., Grand Rapids; Abraham Pott, Capt., Grand Rapids; Donald M. Schuitema, Capt., Grand Rapids; Ray E. Sculley, Capt., Grand Rapids; John S. Sluyter, 1st Lt., Grand Rapids; Ray Vander Meer, 1st Lt., Grand Rapids; Albert Van't Hof, 1st Lt., Grand Rapids; Jerome E. Webber, Lt., (s.g), Grand Rapids.

Lenawee County—I. J. Beebe, 1st Lt., Morenci; Warren V. Hinshaw, 1st Lt., Onsted; Harris D. Iler, 1st Lt., Clinton; Arthur S. Pasternacki, Capt., Adrian; Geo. H. Wynn, 1st Lt., Adrian.

Macomb County—P. T. Mulligan, Capt., Mt. Clemens; Joseph J. Reichman, 1st Lt., Mt. Clemens.

Marquette-Alger Counties—Henry A. Hanelin, 1st Lt., Marquette; Warren C. Lambert, Lt. (s.g.), Marquette; O. I. Neimi, 1st Lt., Marquette.

Muskegon County—Arthur L. Benedict, 1st Lt., Muskegon; Frank Diskin, Capt., Muskegon; Norman A. Fleishman, 1st Lt., Muskegon; Thomas J. Kane, 1st Lt., Muskegon; Marvin B. Meengs, 1st Lt., Muskegon; Bertram W. Morse, Capt., Whitehall; H. Clay Tellman, 1st Lt., Muskegon.

Medical Society of North Central Counties—Douglas B. McDowell, 1st Lt., West Branch.

Northern Michigan—Mark Giffords, 1st Lt., Charlevoix; Joseph A. Winter, 1st Lt., Cheboygan.

Oakland County—Joseph W. Christie, Capt., Pontiac; Edward J. Dobski, 1st Lt., Sylvan; Donald J. Francis, 1st Lt., Pontiac; E. H. Lass, 1st Lt., Oxford; Daryan A. Moosman, 1st Lt., Pontiac; Joseph I. Nosanchuk, 1st Lt., Pontiac; John B. Schoenfeld, Capt., Pontiac; Earle W. Spohn, Capt., Royal Oak.

Oceana County—Walter Lemke, Lt. (s.g.), Shelby; W. Gordon Robinson, 1st Lt., Hart.

Ottawa County—Fred DeYoung, 1st Lt., Spring Lake; Kenneth N. Wells, 1st Lt., Spring Lake.

Saginaw County—Peter R. Chisena, 1st Lt., Bridgeport; Robert Heavenrich, 1st Lt., Saginaw; Homer A. Phillips, 1st Lt., Saginaw; Harry G. Richter, Lt. (s.g.), Saginaw; Frank R. Schultz, 1st Lt., Saginaw;

(Continued on Page 626)

The "Catoptrum Microcosmicum" is one of the most beautiful and rarest of medical works. This volume by Johann Remmelin, published in 1619, contains fascinating anatomical drawings with superimposed sections. Only three or four copies of the book are known to exist.

Ever Since Eve woman probably has had to contend with the menopause. Only during a little more than a decade, with the availability of effective drugs—as epitomized by Theelin—has corrective medical treatment been possible.

Theelin replaces or supplements diminishing estrogenic ovarian secretion to "see the patient through" until endocrine readjustment occurs.

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Theelin Suppositories for vaginal use and Kapseals† Theelol for oral administration are supplied for sustained therapy between injections and for patients who travel.

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(Continued from Page 624)

Aaron C. Stander, 1st Lt., Saginaw; Geo. W. Stewart, 1st Lt., Saginaw.

St. Joseph County—Aben Hoekman, Capt., Constantine; Arvid G. Holm, 1st Lt., Three Rivers; Fred J. Raisch, 1st Lt., White Pigeon; R. D. Zimont, 1st Lt., Constantine.

Shiawassee County—John M. Brandel, 1st Lt., Owosso; Herbert J. Kaufman, 1st Lt., Owosso.

Van Buren County—Avison Gano, 1st Lt., Bangor; Edward J. Hall, Capt., Hartford; Willis A. Hasty, 1st Lt., Gobles; Joseph W. Iseman, Capt., Paw Paw; Chas. Ten Houten, Capt., Paw Paw.

Washtenaw County—James B. Craig, Capt., Ann Arbor; Neil A. Gates, Jr., 1st Lt., Ann Arbor; Martin List, 1st Lt., Ann Arbor; Harry A. Lusk, 1st Lt., Ann Arbor; Robert R. Scott, Capt., Ypsilanti; Edwin M. Wright, 1st Lt., Dexter.

Wayne County—Benjamin Barenholtz, 1st Lt., Detroit; Louis L. Barnett, Capt., Detroit; Howard R. Bergo, Lt. (s.g.), Detroit; Robert J. Bernucci, Capt., Detroit; John O. Boyd, Jr., 1st Lt., Detroit; Geo. T. Britton, 1st Lt., Detroit; Harry E. Carnes, 1st Lt., Detroit; Henry R. Carstens, Colonel, Detroit; George M. Childs, Capt., Detroit; James Y. Clarke, 1st Lt., Detroit; Louis E. Doerr, 1st Lt., Detroit; Samuel G. Epstein, 1st Lt., Detroit; Meryl M. Fenton, Capt., Detroit; Matthew J. Gill, 1st Lt., Dearborn; Samuel M. Gingold, 1st Lt., Detroit; Howard H. Gradis, 1st Lt., Detroit; Briant B. Guerin, 1st Lt., Detroit; Meyer A. Gutterman, 1st Lt., Detroit; Thomas L. Hackett, 1st Lt., Detroit; Louis E. Heideman, 1st Lt., Detroit; John P. Heinke, 1st Lt., Detroit; Herbert H. Holman, Capt., Detroit; Arthur R. Hummel, 1st Lt., Detroit; Thomas D. Johnson, 1st Lt., Detroit; Walter A. Kaplita, 1st Lt., Detroit; Frank J. Kelley, Capt., Detroit; Sumner B. Kingsley, 1st Lt., Detroit; Sander P. Klein, 1st Lt., Detroit; Adam W. Kossayda, 1st Lt., Detroit; Simon Kove, Capt., Detroit; Robert Kuhn, 1st Lt., Highland Park; Chas. G. Johnston, Lt. Commander, Detroit; Wm. A. Lange, Capt., Detroit; Nichlos D. McGlaughlin, 1st Lt., Wyandotte; Charles J. McKenna, Capt., Detroit; Jerry H. McNickle, 1st Lt., Detroit; Harry E. Merritt, 1st Lt., Detroit; Harold K. Merselis, 1st Lt., Detroit; Lewis Meyers, 1st Lt., Detroit; Karl L. Miller, Capt., Detroit; Rowland L. Mindlin, Capt., Detroit; Leslie Pensler, 1st Lt., Detroit; Jack Rom, Capt., Detroit; Stanley J. Roman, Capt., Detroit; Harold E. Runde, 1st Lt., Detroit; John J. Sauk, 1st Lt., Detroit; Henry Siegel, Capt., Detroit; Joseph Slutzky, 1st Lt., Detroit; Edward D. Spalding, Lt. Colonel, Detroit; Lawrence L. Stocker, 1st Lt., Detroit; Martin E. Strand, 1st Lt., Dearborn; Sigismund C. Szabunia, 1st Lt., Hamtramck; Irvan M. Ward, 1st Lt., Detroit; Franklin L. Watters, 1st Lt., Highland Park; John H. Wax, Capt., Detroit; Joseph A. Witter, Capt., Detroit; Edward S. Zawadski, 1st Lt., Detroit.

MICHIGAN MEDICAL SERVICE

As of June 30, 1942, there were 422,403 subscribers enrolled in Michigan Medical Service. During the first five months of 1942, there was a severe employment dislocation because of the conversion of industry to war production. More than 125,000 persons enrolled in Michigan Medical Service lost more than one pay period, and over 75,000 persons enrolled in Michigan Medical Service lost two or more pay periods. Of these people who were not on the pay roll and for whom no deductions could be made, 84 per cent continued their certificate in effect by making direct payment either at the plant or at the district offices of Michigan Medical Service.

In an attempt to establish an index of the decrease in enrollment to be expected during periods of unemployment, a study was made of the Chrysler group. Seventy-five per cent of those temporarily off the pay roll in this group continued their certificate in effect. The enrollment in this group, however, dropped only 10 per cent, indicating that a much higher percentage of those with family coverage continued their certificate in effect and that those who dropped the coverage were, for the most part, single men.

The increase in rates was approved by the Insurance Commissioner to become effective May 15. These rates will bring an increase of 25 per cent in the income of Michigan Medical Service. The basic rates are as follows:

Individual	$0.60-$0.90
Self and spouse	1.60
Self, spouse and dependent children	2.25

The June accounting revealed that during the first six months of 1942 a total of $1,183,890.90 was paid by Michigan Medical Service in the form of benefits to doctors of medicine. These payments were distributed as follows:

January	$ 217,501.35
February	113,404.15
March	171,297.75
April	226,350.05
May	223,890.50
June	231,447.10
	$1,183,890.90

Payments in 1940 were $172,115.00; during 1941, $790,733.30; thus a total of $2,146,739.20 has been paid to doctors of medicine up to June 30, 1942.

Looking Ahead with the "Century"

Resourceful physicians, with faith in the future, are investing today for tomorrow's needs by installing modern shock-proof x-ray equipment.

Though moderately priced, the Picker-Waite "Century" combination fluoroscopic-radiographic x-ray unit incorporates many of the features found only in the most expensive x-ray apparatus.

Completely flexible, the "Century" facilitates fluoroscopy and radiography in every position from the Trendelenberg to the vertical, *without removing the patient from the table.** Fractional-second exposures are routine procedure. It is ideally adapted for fast chest and gastro-intestinal radiography.

The "Century" was designed with an eye to the future. Hundreds of "Century" owners will experience with their equipment, the same efficient service and consistent operation in 1952 that they now enjoy in '42. Write for literature.

**Available with motor drive. Optional.*

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READERS' SERVICE

THE USE AND ABUSE OF THE BARBITURATES

The laity knows too much about the action of the barbiturates as sedatives, therefore a law should be enacted in every state prohibiting the sale of these drugs over the counter. Also to prevent abuse of his prescription, the practicing physician should forbid the refilling of it.

It is an excellent drug for inhibiting convulsions as in strychnine poisoning, tetanus, and status epilepticus. Pediatricians use phenobarbital to allay spasms in children and to quiet a fretful crying baby. In such practice there is certainly a misuse of this drug.

The average dose used to produce sleep does not depress the respiration, but large doses especially such as may produce poisoning, cause death by respiratory failure. Overdoses of barbiturates affect the secretion of urine directly through the circulation, causing an oliguria and anuria. Since urine is the most important avenue for the excretion of these drugs, an anuria delays recovery.

Those destroyed by the liver are the short acting barbiturates. It is known that individuals with impaired hepatic function have remained deeply anesthetized for long periods of time from a hypnotic dose of evipal, which in a normal person would cause an anesthesia for only fifteen minutes. Consequently we are warned that barbiturates which depend upon the rapid destruction by the liver for their short action, should not be given to individuals with hepatic disease. Barbiturates should not be given in carbon tetrachloride poisoning, as this solvent itself damages the organ and it is adding insult to injury in this case because an impaired liver is unable to detoxify these drugs as efficiently as when normal.

The therapeutic dose does not cause death, but when fifteen times the ordinary hypnotic dose has been absorbed, the patient's life is in danger. In acute barbital poisoning, nothing characteristic is seen grossly at the postmortem.—WILLIAM D. MCNALLY, M.D., Chicago, Illinois. (See page 635).

TUMOR OF ADRENAL CORTEX IN A GIRL OF FIFTEEN MONTHS

Parents noted enlarging abdomen and growth of pubic hair at age of six months. General growth and development was increased over normal so that the child appeared at least a year older than her actual age. Facies coarse and hair on body and face followed male distribution. Clitoris hypertrophied to resemble a penis. Tumor of left adrenal weighing 520 grams removed, death from surgical shock.

Pathological diagnosis—carcinoma of adrenal cortex with masculinization.—ROCKWELL M. KEMPTON, M.D., and OLIVER W. LOHR, M.D., Saginaw, Michigan. (See page 643).

BORIC-BUTYN-PETROLATUM GAUZE TREATMENT OF BURNS

General treatment of burns consists of the combating of shock, relief of pain, alleviation of fluid, plasma deprivation and optional sulfonamide medication. The local treatment consists of debridement, thorough cleansing, protection of denuded area, application of antiseptics and local anesthetics. Statistics indicate that regardless of the local treatment, coagulation or otherwise, the mortality rate is uniform, and that generally the lowered mortality is the result of the general treatment, primarily plasma and whole blood transfusions. Several case histories are presented of patients sustaining second and third degree burns that have been treated with the boric-butyn-petrolatum gauze.

Preparation is made by autoclaving 40 strips of gauze, 3x15 inches, covered by 2 ounces of saturated boric acid, 1 ounce butyn (2 per cent), and sufficient petrolatum to cover. This is applied in strips of 1 layer thickness and a sterile dressing is superimposed. A redressing is done every 2-3 days, washing the burn with tepid saturated boric solution and reapplying the medication.

No extensive conclusions are intended. This prepared gauze shows definite promise of being an efficient preparation.—KENNETH HUGHES, M.D., Flint, Michigan. (See page 653).

CHILD HEALTH IN THE NATIONAL DEFENSE PROGRAM

In a general way we can say that child health in a national defense program calls for no particular new measures over those of the peacetime program, except for adequate plans for the evacuation of children in case of actual warfare with bombing attacks, or invasion should take place. This you may be interested to know is also the viewpoint of the Canadian physicians involved in their national defense program with whom I discussed the matter a few weeks ago. What is needed is the extension of our programs to meet the needs created by our increasing industrial and military expansion for defense. With this the intensification of our peacetime efforts so that our children of today will be both

(Continued on Page 630)

SAFE, CONVENIENT, when mother and baby must travel

The mother has only to measure out and place in dry, sterile feeding bottles, the prescribed amount of Similac powder for each individual feeding. The bottles containing the measured Similac powder are then capped, and can be conveniently carried, along with a thermos bottle of boiled water cooled to about blood heat. At feeding time it is necessary only to pour into one of the bottles containing the measured Similac powder, the prescribed amount of water, then shake until the Similac is dissolved, place a nipple on the bottle, and feed.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

A powdered, modified milk product especially prepared for infant feeding, made from tuberculin tested cow's milk (casein modified) from which part of the butter fat is removed and to which has been added lactose, olive oil, cocoanut oil, corn oil and cod liver concentrate.

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physically and emotionally fit to meet the problems they must face in the years to come. No one can foresee the adjustments to living and the way of life as we have known it in the past two decades that will be necessary, but that they will be profound is beyond question.

We can be certain that the present emergency will give a marked stimulus to child health programs as national emergencies have done in the past. The same or similar measures which have been employed to develop a physically fit army, emotionally conditioned to wage a destructive warfare with the ideology of barbaric conquest, can, I believe, be used to create an equally efficient youth in our nation from a physical standpoint, but imbued with an ideology of the rights of man and the ideals of a democracy. This is the problem of child health in our national defense program.—BORDEN S. VEEDER, M.D., St. Louis, Missouri. (See page 656).

CHEMICAL INJURIES OF THE EYES

There is a long list of chemicals causing reported injuries to the eyes. These chemicals are varied in nature and cover many industries. Diagnosis of the injury is usually easy. The prognosis and treatment are not.

Irrigation of the eyes with water voluminously is paramount in treatment; neutralization of chemicals, questionable. Treatment after the first day of injury is a thing left undiscussed in the literature; these succeeding days are filled with sequelæ and complications; viz., secondary slough of tissues, conjunctival and corneal chemosis, corneal ulceration, chemical iritis, secondary purulent conjunctivitis, symblepharon, deep skin burns with ectropion and entropion, residual corneal scars, wild hairs, recurrent corneal erosions and less common changes.

Special problems exist for such substances as tear and other war gases, hot tar burns, lime burns, hydrogen sulfide exposures, sulfur dioxie refrigerants. Lastly contact dermatitis is often manifested about and in the eyes. Differential diagnosis from atopic eczemas is given.—MELVIN H. PIKE, M.D., Midland, Michigan. (See page 661).

Michigan Physicians at A.M.A. Meeting

Two hundred and six Michigan physicians registered at the 1942 Annual Convention of the American Medical Association in Atlantic City, June 8 to 12, despite the war, gas rationing and other hindrances. Those registered on Monday were reported in the July issue. Following are those registered on Tuesday, Wednesday and Thursday:

Tuesday: Ashley, L. Byron, Detroit; Atchison, Russell M., Northville.
Baltz, James I., Detroit; Beaton, Colin, Detroit; Bogart, Leon M., Flint; Broudo, Philip H., Detroit; Burton, DeWitt T., Detroit.
Chandler, Donald, Grand Rapids; Cooper, J. E., Battle Creek; Corbett, John J., Detroit; Curry, George J., Flint; Curtis, Arthur C., Ann Arbor.
D'Alcorn, Ernest N., Muskegon; deAlvarez, Russell R., Ann Arbor; Danforth, M. E., Detroit; Donaldson, Sam W., Ann Arbor; Doub, Howard P., Detroit; Dubnove, Aaron, Detroit.
Elliott, H. B., Flint.
Fisher, O. O., Detroit; Ford, Walter D., Detroit; Freyberg, Richard H., Ann Arbor; Fralick, F. Bruce, Ann Arbor.
Gariepy, Louis J., Detroit.
Hall, W. E. B., Port Huron; Harm, Winfred B., Detroit; Hartman, Frank W., Detroit; Heide, E. C. Vonder, Detroit. Hodgkinson, C. P. Detroit.
Jarre, H. A., Detroit; Jennings, Alpheus F., Detroit.
Kuhs, Milton L., Kalamazoo.
Lamberson, Frank A., Detroit; Lepard, Cecil W., Detroit; Lockwood, Bruce C., Detroit.
McColl, Clarke M., Detroit; Mackersie, W. G., Detroit; McKean, G. Thomas, Detroit; Martin, Edw. G., Detroit; Morton, John B., Detroit; Mast, Wesley H., Petoskey; Meengs, Jacob E., Grand Rapids; Meyers, Solomon George, Detroit; Miller, Ernest B., Manistee; Morrow, R. J., Lansing; Moss, N. H., Detroit; Murphy, John M., Detroit.
Nesbitt, William E., Alpena; Nunemaker, John Coleman, Ann Arbor.
Payne, C. Allen, Grand Rapids; Pollard, H. Marrin, Ann Arbor.
Robb, Herbert F., Belleville; Rogin, James R., Detroit; Rosefield, John L., Detroit.
Saltonstall, Gilbert B., Charlevoix; Sandweiss, David J., Detroit; Sawyer, Harold F., Detroit; Secord, Eugene Wm., Detroit; Sladek, E. F., Traverse City; Smyth, Charley J., Eloise; Somers, Donald C., Detroit; Spoehr, Eugene L., Ferndale; Stevens, Rollin H., Detroit; Stull, H. Tuttle, Lansing.
Teifer, Chas. A., Muskegon; Thalner, L. F., Jackson.
Vandeventer, V. H., Ishpeming.
Wilson, Walter J., Sr., Detroit; Wolters, Simon L., Fort Brady.
Zielinski, Chas. J., Detroit.

Wednesday: Bandy, F. C., Sault Ste Marie; Beernink, E. H., Grand Haven; Branch, Hira E., Flint.
Droste, James C., Grand Rapids.
Heath, Parker, Detroit; Heath, Leonard P., Detroit.
Jahsman, William E., Detroit.
Kinde, M. R., Battle Creek; Kolvoord, T., Battle Creek.
Marcovich, Abraham W., Paw Paw; Mateer, John G., Detroit; Miley, Hugh Howard, Detroit; Miller, Norman F., Ann Arbor; Monts, Raymond W., Detroit.
Nesbit, Reed M., Ann Arbor; Noordewier, Albert, Grand Rapids.
Pino, Ralph H., Detroit; Pio Foa, Piero, Ann Arbor.
Ratigan, Carl S., Dearborn; Rothman, Emil D., Detroit.
Seeley, Ward F., Detroit; Sladen, Frank J., Detroit; Snyder, L. M., Lansing.
Walls, Arch, Detroit.

Thursday: Babcock, Warren W., Detroit; Bell, Wm. M., Detroit.
Campbell, Duncan, Detroit.
Denison, Louis L., Detroit; Duane, Beam A., Grosse Pointe.
Nicholson, John B., Marquette.
Reynolds, Roland P., Detroit; Robb, J. M., Detroit.
Selling, Lowell Sinn, Detroit.

RESTRICTIONS ON QUININE

The War Production Board has issued a conservation order affecting quinine and cinchona preparations. Physicians and pharmacists are advised that quinine or quinine salts and cinchona preparations are to be used only for the treatment of malaria fever and are to be dispensed for this purpose only upon a physician's prescription. Quinine may be used also for making urea or quinine hydrochloride.

Wholesale druggists and retail pharmacists will not be allowed to purchase the above-mentioned products in quantities greater than 50 ounces. If your pharmacist is refusing to fill prescriptions for these drugs unless they are being used for the treatment of malarial fever, or, in the case of the exception, for making of urea and quinine hydrochloride, he is following the orders of the War Production Board.—ROLAND T. LAKEY, Dean, College of Pharmacy, Wayne University, Detroit, Michigan.

MEDICAL EXPLORERS

Not a few physicians who have traveled extensively have returned home to write of their explorations and thus to give pleasure and instruction to their fellow colleagues and many others. Some have set out on scientific missions, such as Mungo Park, the young Scottist surgeon, whose *Travels in the Interior Districts of Africa* (1799) may still be read as a thrilling account of individual adventure. Other famous doctors described their travels for pleasure. Two may be mentioned: Richard Bright's *Travels from Vienna through Lower Hungary* (1818), an account of a postgraduate tour, illustrated with Bright's original drawings, and Thomas Hodgkin's *Narrative of a Journey to Morocco* (1866), the story of a trip with his patient, Sir Moses Montefiore. To these two groups must be added a third, composed of those describing a vacation tour or a particular service with the Army or Navy. In this category would fall the well-known book by Oliver Wendell Holmes, *Our Hundred Days in Europe* (1887), and the fine account by the late Harvey Cushing entitled, *From a Surgeon's Journal* (1936).

The whole group of travel books by doctors extends into several thousand volumes. There have already been gathered in one library four or five hundred volumes, and many more are known. Doctors in general have added greatly to the knowledge of the world, and their reminiscences have been of much interest to their fellow colleagues. Few, however, have engaged in much more than the ordinary types of travel. Mungo Park would be considered an explorer of the first class, as would the American, Elisha Kent Kane, who visited the Artic.

At the present time there must be added to these individuals the name of Richard Upjohn Light, who in the last ten years has made two unusual trips by aeroplane, accounts of which have been published. The first one was a privately printed book, *Journal of a Seaplane Cruise Around the World, August 20, 1934, to January 24, 1935* (1937). On this trip, Light, with Robert French Wilson as his radio operator, circumvented the globe by aeroplane, except for the trip across the Pacific from Manila to Vancouver. Thus he became the first American to fly from continental United States eastward to the Philippine Islands. His log of the journey was accompanied by his carefully drawn maps of the country over which he passed. He made many notes of particular medical interest, and one of his reports, after his visit to Labrador, was separately published in the October 25, 1934, issue of the *Journal*. In addition there are many notes in the book about medical conditions in Greenland and accounts of his visits to various hospitals in Europe. This journey, taken seven years ago, was a pioneer effort in exploration by aeroplane and was widely recognized by geographers as a trip of unusual importance. Following this exploration, Light was made a member of the American Geographical Society and later was elected a councilor of that distinguished scientific body.

Under the auspices of the American Geographical Society, Light has now published his account of another aeroplane trip, this time over Africa. A review of the extraordinary book appears in this issue of the *Journal*. His account is a fitting climax to an unusual career in the air, which began in 1930. Light flew over Central America in 1932; later he photographed parts of the Rocky Mountains from Vera Cruz to Mexico northward to Salt Lake City. His trip around the world in 1934-1935 has already been mentioned. In 1937-1938, prior to the trip across Africa, Light and his wife flew westward across North America, southward through Mexico and Central America, then eastward across South America to Rio de Janeiro. During this decade, Light has become the outstanding physician of his time in the world of aerial exploration.—*The New England Journal of Medicine*, July 17, 1941.